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OF THE

Department of Psychology and Education

OF THE

UNIVERSITY OF COLORADO

ARTHUR ALLIN, PH. D., EDITOR.

Professor of Psychology and Education.

CONTENTS:

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Schools of the University of Colorado

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ADDRESSES OF PUBLISHERS.

[When in doubt as to the character of any of the books recommended in this catalogue, school boards and teachers should communicate with the publisher. In some cases, publishers are willing to send books on approbation, and, in all cases, they are willing to supply full particulars.]

The following list contains the addresses of a number of the best publishers:

Alden, John B., New York.
Allyn & Bacon, Boston and New York.
Altemus, Henry, Philadelphia.
American Book Co., New York.
Ames & Rollinson Co., New York.
Appleton, D., & Co., New York.
Arnold, Edward, London.
Athenæum Press, Ginn & Co., Boston.
Barnes, A. J., St. Louis, Missouri.
Bell, George, & Sons, (Bohn), London.
Bender, Brewar & McGurrian, Grand Rapids, Mich.
Black, Adam & Charles, London.
Blackie & Son, London.
Blackwood, William, & Sons, Edinburgh and London.
Blades, East & Blades, London, Eng.
Blakiston's, P., Son & Co., Philadelphia.
Briggs, William (The Methodist Book Room), Toronto.
Burrows Bros. Co., Cleveland, Ohio.
Business Educators' Publishing Co., London, Ont.
Cambridge Press, Macmillan Co., New York.
Cassell & Co., New York.
Century Co., New York.
Chambers, W. & R., London and Edinburgh.
Chapman & Hall, London.
Chatto & Windus, London.
Christern, F., & Co., New York.
Churchill, J. & A., London.
Clarendon Press, Oxford.
Coates, Henry T., & Co., Philadelphia.
Comstock, Wm. T., 23 Warren St., New York.
Copp, Clark Co., Toronto.
Crowell, T. Y., & Co., New York.
Dawson Bros., Montreal.

Dent, J. M., & Co., London.
 Dodd, Mead & Co., New York.
 Donoghue, M. A., Chicago.
 Doubleday, Page & Co., New York.
 Douglas, David, Edinburgh.
 Drysdale, W., & Co., Montreal.
 East and Blade, London.
 Eddis, W. C., Toronto, Ont.
 Educational Publishing Co., Boston.
 Fleming, C., Owen Sound, Ont.
 Funk & Wagnalls Co., New York and London.
 Gage, W. J., Co., Toronto Canada.
 Gee & Co., London.
 Gill, George, & Sons, London.
 Ginn & Co., Boston and New York.
 Goodwin, J. H., 1215 Broadway, New York.
 Griffin, Chas., & Co., London.
 Harper & Bros., New York.
 Hazel, Watson & Viney, London.
 Heath, D. C., & Co., Boston.
 Henley, Norman W., & Co., New York.
 Holt, Henry, & Co., New York.
 Home Science Pub. Co., Boston.
 Houghton, Mifflin & Co., Boston and New York.
 Hurst & Co., New York.
 Isbister & Co. London.
 Johnson, W. & A. K., London and Edinburgh.
 Kegan Paul, Trench, Truebner & Co., London.
 Kellogg, E. L., & Co., New York.
 Lee & Shepard, Boston.
 Lippincott, J. B., Co., Philadelphia.
 Little, Brown & Co., Boston.
 Longmans, Green & Co., London and New York.
 Lothrop Publishing Co., Boston.
 Lovell, John, Montreal.
 Lupton, F. M., Pub. Co., New York.
 Macmillan Co., London and New York.
 McClure, Phillips & Co., New York.
 Maynard, Merrill & Co., New York.
 Methodist Book Concern, New York.
 Methuens, London.
 Mitchell, C. W., Ottawa.
 Morang, George N., & Co., Toronto.
 Munn & Co. (Scientific American), New York.
 Murray, John, London.
 National Educational Association, University of Chicago Press.

Nelson, T., & Sons, London, Edinburgh and New York.
Newnes, George, London.
Nimmo, W. P., Hay & Mitchell, Edinburgh.
Open Court Pub. Co., Chicago.
Orange Judd Co., New York.
O'Shea, J., New York.
Powers & Lyons, New York.
Prang Educational Co., Boston, Mass.
Putnam's, G. P., Sons, New York.
Rand, McNally Co., Chicago and New York.
Riker, H. E., Cleveland, Ohio.
Rivington's, London.
Robinson & Johnson, Belleville, Ont.
Routledge, George, & Sons, New York and London.
Sampson, Lowe, Marston & Co., London.
Sanborn, D. H., & Co., Boston.
Schoenhof, Carl, Boston.
Scott, Walter, London.
Scribner's, Chas., Sons, New York.
Seeley & Co., London, England.
Silver, Burdett & Co., New York and Boston.
Simpkin, Marshall, Hamilton, Kent & Co., London.
Smith, Elder & Co., London, Eng.
Soule, George, & Sons, New Orleans, Louisiana.
Soule Photo Co., Boston.
Stechert, G. E., New York.
Swan, Sonnenschein & Co., London.
University of Chicago Press, Chicago.
University Press, Cambridge.
University Tutorial Press—W. P. Clive—157 Drury Lane, London.
Unwin, T. Fisher, London.
Van Nostrand, D., New York.
Ward, Locke & Co., London.
Warne, Fred., & Co., New York.
Werner, Edgar S., Pub. and Supply Co., New York.
Western Penman Pub. Co., Cedar Rapids, Iowa.
Whittaker, Thos., New York.
Wiley, John, & Sons, New York.
Williams & Norgate, London and Oxford.
Wood, Wm., & Co., New York.
Wylie, John, & Sons, New York.
Zaner & Bloser, Columbus, Ohio.

BIBLIOGRAPHY OF HIGH-SCHOOL REFERENCE BOOKS.

Recommended by the Committee on High Schools of the
University of Colorado.

I. ENGLISH.

Dictionaries, etc.

- ✓ Standard Dictionary: 2 vols., \$18.00 (one vol. ed. \$15.00), new edition, 1901; Funk & Wagnalls. Encyclopædic in character, fuller explanations being given than are usual in a dictionary. Useful appendix similar to that of the International.
- Students' Edition of the Standard Dictionary: 915 pages; Funk & Wagnalls. Abridged from the Standard. An excellent small dictionary.
- ✓ The International Dictionary: Noah Webster. 2011 pages, \$12.00; Merriam & Co. This is doubtless the best one-volume dictionary of the English language. The edition of 1902 is thoroughly revised. The appendices contain much valuable matter.
- Worcester's Dictionary of the English Language: 2126 pages, \$10.00; J. B. Lippincott Co. This dictionary is the standard authority in the Eastern portion of the United States. It contains useful appendices similar to those of the International.
- New English Dictionary on Historical Principles: This dictionary is founded mainly on materials collected by the Philological Society since 1857, edited by J. A. H. Murray, LL.D. Very full on the philological side, including words in use for the past 700 years. It is an expensive work, chiefly valuable for the scholar. Vols. I-VI, A—L. Each vol. £2 12s 6d. Clarendon Press.
- Etymological Dictionary of the English Language: W. W. Skeat. 844 pages, 1893, £2 4s; Clarendon Press. A very useful and concise volume. Murray's is of course the best authority so far as it has been completed.
- ✓ Dictionary of English Literature: S. A. Allibone. 5 vols.; J. B. Lippincott Co.
- Dictionary of American Authors: O. F. Adams. \$3.50; Houghton, Mifflin & Co.
- Dictionary of English Quotations: P. H. Dalbiac. With authors and subject index, 1896, \$2.00; Macmillan Co.
- Familiar Quotations: \$2.50; J. B. Lippincott Co.

- Prose and Poetical Quotations: S. A. Allibone. 2 vols., each \$2.50; J. B. Lippincott Co. Both authors and subjects alphabetically indexed. This is the standard dictionary of quotations.
- Cyclopædia of Practical Quotations: J. K. Hoyt. With appendix containing proverbs from modern foreign languages, Latin law terms, etc., \$6.00 to \$12.00, according to binding; Funk & Wagnalls.
- Classical and Foreign Quotations: W. H. King. Law terms and maxims, proverbs, mottoes, phrases and expressions in French, German, Greek, Italian, Latin, Spanish and Portuguese, with translations, references, explanatory notes and indices, \$1.75; Cassel Pub. Co.
- Dictionary of English Synonyms and Synonymous Parallel Expressions: 488 pages, \$2.25; J. B. Lippincott Co. This volume is designed as a help to the student of expression in the way of aptness and variety.
- Synonyms Discriminated: Charles John Smith. 781 pages, \$2.00; Henry Holt & Co. This work discriminates the use of words more closely than the other dictionaries of synonyms, and indicates the derivations.
- English Synonyms: George Crabbe. New edition, 856 pages, \$1.25; Harper & Bros. Quotations from the best authors illustrating the use of the words. A concise, convenient and useful work for student and teacher.
- Thesaurus of English Words and Phrases: Peter Mark Roget. New edition. 429+271 pages; J. B. Lippincott Co. A collection of words and idioms arranged according to ideas which they express. The purpose of an ordinary dictionary is to explain the meaning of words. The object aimed at in this work is the converse of this—the idea being given, to find the most fitting expression.
- Familiar Allusions: Charles G. Wheeler. A handbook of miscellaneous information, including the names of celebrated statues, paintings, palaces, country seats, ruins, churches, ships, streets, clubs, natural curiosities, etc., \$2.00 to \$3.50, according to binding; Houghton, Mifflin & Co.
- Classic Myths in English Literature: Charles Mills Gayley. \$1.50; Ginn & Co. This is a very useful reference book for both teacher and student of English Literature.
- Dictionary of National Biography: Edited by Sydney Lee. 55 vols., \$5.00 each; Macmillan Co. This is the most complete and valuable cyclopædia of English biography, but is too extensive for most High Schools.
- Chambers's Biographical Dictionary; The Great Men of All Times and Nations: Edited by David Patrick, LL. D., and Francis Hindes Groome, \$3.50; J. B. Lippincott Co.
- Appleton's Cyclopædia of American Biography: J. G. Wilson. 7 vols., \$5.00 to \$7.00 each; D. Appleton & Co.
- Chambers's Cyclopædia of English Literature: 3 vols, each \$5.00; J. B. Lippincott Co.
- Chambers's Encyclopædia: Last edition, 1901, 10 vols., with illustrations, maps, etc., \$20.00; J. B. Lippincott Co. This is a good, concise encyclopædia, with articles on American subjects by American specialists. Not much revision has been made since 1900.

New International Encyclopædia: 17 vols., \$85.00; Dodd, Mead & Co.
 Universal Cyclopædia: Edition 1900, prepared by a large corps of editors, assisted by eminent specialists, under the direction of C. K. Adams; 12 vols., with illustrations, maps, etc., \$63.00; D. Appleton & Co. These two encyclopædias are well adapted to the use of high school pupils. They are of similar character and value. If an encyclopædia containing more exhaustive articles is desired, either the Encyclopædia Britannica with the American Supplement, or Appleton's, will be found the most satisfactory.

English Grammar and Philology.

English Language: H. R. Greene. \$1.05; Houghton, Mifflin & Co.
 Origins of the English People and Language: J. Roemer. \$3.50; D. Appleton & Co.
 Lectures on the English Language: G. P. Marsh. \$3.50; Scribner's Sons
 A useful book for the teacher.
 History of the English Language: Prof. T. R. Lounsbury. \$1.12; Henry Holt & Co.
 History of the English Language: Prof. O. F. Emerson. \$1.00; Macmillan Co. This is an excellent work, embodying the more recent investigations in English philology. The native element in English is emphasized. Both of the two preceding works are very useful, probably the best yet published for the introductory study of the English language in High Schools.
 The English Language, its Grammar, History, and Literature, with chapters on Composition, Versification, Paraphrasing and Punctuation; J. M. D. Meiklejohn, M. A. D. C. Heath & Co. An old but still valuable work.
 Higher English Grammar: Alexander Bain. 80c; Henry Holt & Co.
 Companion to the Higher English Grammar: Same author; Longmans, Green & Co. Old standard works, but valuable.
 English Grammar: Prof. G. H. Bell in Bell's Language Series. 65c; Pacific Pub. Co., Oakland, Cal. A recent and concise treatise.
 Whitney's English Grammar: 70c; Ginn & Co.
 English Grammar: G. R. Carpenter. 75c; Macmillan Co.
 English Grammar: W. M. Baskerville. 90c; American Book Co.
 The Grammar of English Grammars: Gould Brown. A criticism of English grammar, valuable for the teacher of English; Wm. Ward & Co., New York.
 A Short Historical English Grammar: Henry Sweet. 4s 6d; Clarendon Press.
 Advanced Grammar and Composition: E. O. Lyte. American Book Co.
 Primer of English Etymology: W. W. Skeat, 40c; Clarendon Press.
 Primer of English Etymology: Henry Sweet. Revised edition, 50c; Clarendon Press.
 Historical Outlines of English Accidence: Dr. Morris. Revised by Kellner and Bradley. \$1.40; Macmillan Co.

- Historical Outlines of English Syntax: L. Kellner. \$1.40; Macmillan Co.
- Shakespearian Grammar: E. A. Abbott, D.D. New edition, \$1.50; Macmillan Co. The authority on the syntax and idiom of the English of Shakespeare and the Elizabethans generally; a book that should be familiar to every teacher of English.
- Primer of Spoken English: Henry Sweet. 3s 6d; Clarendon Press.
- Words and Their Ways in English Speech: Greenough and Kittredge. \$1.25; Macmillan Co. A popular but scholarly exposition of the most important tendencies in the history and development of English words and meanings. A very interesting and suggestive volume.
- Words and Their Uses Past and Present: Richard Grant White. \$1.00; Houghton, Mifflin & Co.
- Everyday English: A sequel to the preceding, same author, \$2.00; Houghton, Mifflin & Co.
- Parts of Speech: Brander Matthews. \$1.25; Scribner's Sons. Americanisms, American spelling, the future of the language, slang, and many other interesting topics are treated.
- Life and Growth of Language: W. D. Whitney. An outline of linguistic science, \$1.50; D. Appleton & Co.
- English Etymology: Kluge and Lutz. 60c; D. C. Heath & Co. The scope of this work is sufficient to give the student an introduction to the study of the historical development of the language, and an insight into the principal linguistic phenomena. The form of the book is that of a dictionary.
- Principles of English Etymology: W. W. Skeat. First Series (vol. I.), \$2.25—The Native Element; Second Series (vol. II.), \$2.60—The Foreign Element; Clarendon Press.
- Elementary Phonetics: A. W. Burt. 50c; Copp, Clark Co.
- Structure of the English Sentence: L. G. Kimball. 75c; American Book Co.
- Essentials of the English Sentence: E. J. MacEwan. 75c; D. C. Heath & Co.
- Handbook of Poetics: F. B. Gummere. \$1.10; Ginn & Co.
- Primer of English Verse: H. O. Corson. \$1.10; Ginn & Co.

These two handbooks are invaluable as giving in compendious and convenient form the leading facts of English versification, metre, rhythm, verse forms, kinds of poetry, etc. The former treats epic, lyric and dramatic forms, poetic style, figures, and metre; the latter, poetic unities, accent, melody, harmony, rhyme, poetic measures, and typical stanzaic forms, such as the Spenserian stanza, the sonnet types and blank verse.

Composition and Rhetoric.

- ✓ English Composition: Barrett Wendell. \$1.50; Scribner's Sons.
- Paragraph Writing: Scott and Denney. \$1.00; Allyn & Bacon.
- ✓ Introduction to Theme Writing: Fletcher and Carpenter. 60c; Allyn & Bacon.
- ✓ Working Principles of Rhetoric: Examined in their literary relations and illustrated with examples; John F. Genung. \$1.40; Ginn & Co.

Foundations of Rhetoric: A. S. Hill. \$1.00; American Book Co. A high school text book. Principles of Rhetoric by the same author and publisher is a more advanced work.

Talks on Writing English: Arlo Bates. Two vols., each \$1.50; Houghton, Mifflin & Co.

English Teaching: G. R. Carpenter. Longmans, Green & Co.

English Composition; Notes for Teachers: G. R. Carpenter. 25c; Macmillan Co.

Elements of Rhetoric: Carpenter. Macmillan Co.

College Entrance Requirements in English, 1901-1905: 80c. American Book Co.

What is Good English? Harry Thurston Peck. \$1.50; Dodd, Mead & Co.

Errors in the Use of English: W. B. Hodgson. 60c—\$1.50; D. Appleton & Co.

Composition and Rhetoric: Lockwood and Emerson. Ginn & Co.

Elements of English Composition: Gardiner, Kittredge and Arnold. 1902; Ginn & Co.

English in Preparatory Schools: E. W. Huffcutt. 25c; D. C. Heath & Co.

Modern Punctuation. W. B. Dickson. 75c; G. P. Putnam's Sons.

English Punctuation. L. L. Williams. 60c; American Book Co.

Treatise on Punctuation. J. Wilson. \$1.00; American Book Co.

Rhetoric and Oratory. J. F. X. O'Connor. \$1.12; D. C. Heath & Co.

Briefs for Debate. Brookings and Ringwalt. With an introduction on the Art of Debate. \$1.25; Longmans, Green & Co.

Essentials of Argumentation. E. J. MacEwan. \$1.12; D. C. Heath & Co.

Orations and Arguments. C. B. Bradley. \$1.00; Allyn & Bacon.

History of English Literature.

Short History of English Literature. \$1.50; Macmillan Co. This is a good brief history, valuable for the teacher, but not adapted to the use of high school pupils.

Early English Literature. Stopford A. Brooke. \$2.50; Macmillan Co.

English Literature. Stopford A. Brooke. With chapters by G. R. Carpenter; Macmillan Co., 1902.

Brief History of English Literature. H. A. Beers. \$1.00; Methodist Book Concern.

History of English Literature. H. A. Taine. Translated into English. Four-volume edition, \$7.50. The same in two volumes, \$5.00; Henry Holt & Co.

A History of English Literature. Moody and Lovett. Scribner's Sons.

History of English Literature. Halleck. 1900; American Book Co.

Introduction to English Literature. H. S. Pancoast. \$1.25; Henry Holt & Co.

In this work there is a brief account of the successive periods, noting foreign influences and emphasizing the relation of literature to history. The

Nineteenth Century is treated with more fullness than the other periods.

Beginnings of English Literature. C. M. Lewis. 90c; Ginn & Co. This book gives an account of the literature prior to the Elizabethan period.

It furnishes a good introduction for classes whose reading of the literature begins with Shakespeare, Chaucer or Spenser.

✓ History of Nineteenth Century Literature. G. Saintsbury. \$1.50; Macmillan Co.

History of Elizabethan Literature. G. Saintsbury. Macmillan Co.

Notes on English Literature. F. P. Emery. \$1.00; Ginn & Co.

Nineteenth Century Authors: Brief notes and Bibliographical references for the leading authors of the period. L. M. Hodgkins. D. C. Heath & Co.

Literary History of the English People: J. J. Jusserand. 3 vols., each \$3.50; G. P. Putnam's Sons. This is an invaluable work for the teacher of English literature, although it is of too advanced and scholarly character for the general use of high school students.

English Literature of the Age of Elizabeth: W. Hazlitt. \$1.00; Macmillan Co.

English Literature in the Eighteenth Century: Edmund Gosse. \$1.00; Macmillan Co.

Handbooks of English Literature: Edited by J. W. Hales. George Bell & Sons. The series is as follows:

1. The Age of Chaucer. F. J. Snell.
2. The Age of Shakespeare. Thos. Seecombe and J. W. Allen.
3. The Age of Milton. Rev. J. H. B. Masterman.
4. The Age of Dryden. Richard Garnett.
5. The Age of Pope. John Dennis.
6. The Age of Johnson. Thos. Seecombe.
7. The Age of Wordsworth. C. H. Herford.
8. The Age of Tennyson. Hugh Walker.

These handbooks constitute the most satisfactory account of English literature of an extended character, for school use.

History of English Literature (to Surrey and Wyatt): Ten Brink. 3 vols., \$2.00 each; George Bell & Sons. This is an advanced work for the scholar.

The Literary History of England in the End of the Eighteenth and Beginning of the Nineteenth Century: Mrs. Oliphant. 3 vols., \$3.00; Macmillan Co. The aim of this work is "to set forth the remarkable outburst of new and noble genius by which the end of the last century and the beginning of our own was distinguished, and made into a great and individual age in literature."—Preface.

Literary History of America: Barrett Wendell. \$3.00; Charles Scribner's Sons.

English Men of Letters Series: Edited by John Morley. 40c each; Macmillan Co. The list is as follows: Addison, Jane Austen, Matthew Arnold, Bacon, Bentley, Bunyan, Burke, Burns, Byron, Carlyle, Chaucer, Coleridge, Cooper, Crabbe, Defoe, DeQuincey, Dickens, Dryden, George Eliot, Fielding, Gibbon, Goldsmith, Gray, Hazlitt, Hume, Johnson, Keats, Lamb, Landor, Locke, Macaulay, Milton, Pope, Richardson, Ruskin, Scott, Shelley, Sheridan, Sidney, Southey, Spenser, Sterne, Swift, Ten-

nyson, Thackeray, Wordsworth. All issued in twelve volumes, each \$1.00. Harper & Bros. also publish the series Hawthorne added, in 39 vols., 75c each.

American Men of Letters Series: Biographies of distinguished American authors. Edited by Charles Dudley Warner. Each volume with portrait, 16mo, gilt top, \$1.25; Houghton, Mifflin & Co. The list is as follows: Washington Irving, Noah Webster, Henry D. Thoreau, George Ripley, J. Fenimore Cooper, Margaret Fuller, Ralph Waldo Emerson, Edgar Allan Poe, Nathaniel P. Willis, Benjamin Franklin, William Cullen Bryant, William Gilmore Sims, George William Curtis, Bayard Taylor, Nathaniel Hawthorne, John Greenleaf Whittier, Henry W. Longfellow, William H. Prescott.

Great Writers: A series of critical biographies of European and American writers. Edited by Prof. Eric S. Robertson, with complete bibliography to each volume, by J. P. Anderson. Each 35c. Library edition, each, \$1.00; Charles Scribner's Sons. The list follows: Jane Austen, H. Balzac, Charlotte Bronte, Robert Browning, John Bunyan, Robert Burns, Lord Byron, Thomas Carlyle, M. de Cervantes, Samuel Coleridge, W. Congreve, George Crabbe, Charles Darwin, Charles Dickens, George Eliot, R. W. Emerson, J. W. Goethe, Oliver Goldsmith, N. Hawthorne, H. Heine, Victor Hugo, Leigh Hunt, Samuel Johnson, John Keats, G. E. Lessing, H. W. Longfellow, F. Marryatt, J. S. Mill, John Milton, E. Renan, D. G. Rossetti, F. Schiller, A. Schopenhauer, Walter Scott, P. B. Shelley, R. B. Sheridan, Adam Smith, T. Smollett, H. D. Thoreau, W. M. Thackeray, Voltaire, J. G. Whittier This is a very valuable series.

The History of American Literature: H. A. Beers. \$1.00; Henry Holt & Co.

American Literature: C. F. Richardson. 2 vols., each \$3. Two in one, \$3.50.

An indispensable work; G. P. Putnam's Sons.

American Literature (Colonial Period): Moses Coit Tyler. 2 vols., each \$2.50. In one vol., \$3.00. This is the authority on this period, a thorough and scholarly work.

Introduction to American Literature: Brander Matthews. \$1.00; American Book Co. This is an excellent brief account of the subject.

Half Hours With the Best American Authors: C. Morris. \$6 to \$13; J. B. Lippincott Co.

Reliques of Ancient Poetry: Thomas Percy. 2 vols., each, \$1.00; Macmillan Co.

English Poetry: W. J. Courthope. 2 vols., each, \$2.50; Macmillan Co.

English Writers: Henry Morley. Eleven volumes, each, \$1.50; Cassell & Co. An indispensable work for the teacher.

Best Elizabethan Plays: W. R. Thayer; Ginn & Co.

Introduction to American Literature: H. S. Pancoast. \$1.00; Henry Holt & Co. An excellent guide for classes beginning the subject.

American Literature: J. W. Abernethy. \$1.25; Maynard, Merrill & Co. A little more advanced in character, but suitable for beginning classes.

One of the very best brief accounts of American literature yet published.

Topical Notes on American Authors: Lucy Tappan. \$1.00; Silver, Burdette & Co. Notes and bibliographies for the use of teachers. A very useful book.

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- Household Edition of Standard Classics (106 vols.), 75c; Henry T. Coates & Co.
- Landsdowne Poets: \$1.25 each; Frederick Warne & Co.
- Library of English Classics: 8vo. Price, \$1.50 net per volume; Macmillan Co. The following is a list of the volumes already issued: Sheridan's Plays, one vol.; Bacon's Essays, etc., one vol.; Malory's Morte D'Arthur, two vols.; Sterne's Tristram Shandy and Sentimental Journey, two vols.; Boswell's Life of Johnson, three vols.; Carlyle's French Revolution, two vols.; Fielding's Tom Jones, two vols.; Travels of Sir John Mandeville; with Illustrative Narratives from Hakluyt, one vol.; White's Natural History of Selbourne, one vol.; Lockhart's Life of Scott, five vols.; Don Quixote, translated by Shelton, three vols.; De Quincey's Confessions of an Opium Eater, Murder as a Fine Art, English Mail Coach, etc., one vol.; Walton's Lives, and Complete Angler, one vol.; Carlyle's Sartor Resartus and Heroes and Hero Worship, one vol.
- Literary Selections for Advanced Classes. 45c; The W. J. Gage Co. A well selected volume of both poetry and prose.
- Little Library, containing a biography and critical estimate of each work, with occasional short footnotes. Cloth, 1s 6d a vol. net; Methuen & Co.
- New Alpine Series: 75c; Donoghue & Co.
- New Astor Library of Prose: Cloth, 60c.
- New Alta Library (256 vols.), 75c each; Henry T. Coates & Co.
- Standard English Poems: Spenser to Tennyson. Selected and edited by Pancoast. 749 pp., \$1.50; Henry Holt & Co.
- Treasury of Irish Poetry: By Stopford Brooke. \$1.75; Macmillan Co.
- Victorian Anthology: By the same author and publishers.
- Waldorf Library, 75c; Abbotsford Edition of Poets (52 vols.), 75c; Gladstone Edition of Poets, 75c; T. Y. Crowell & Co. The poets are: Dunbar, Surrey and Wyatt, Spenser, Shakespeare, Johnson, Milton, Dryden, Pope, Goldsmith, Cowper.

II. HISTORY.

It is difficult to recommend a bibliography in history suitable for a high-school library because of the vastness of the subject, and the necessarily different methods of approaching history in different schools under the direction of different teachers. The following suggestions must, therefore, not be regarded as anything more than suggestions. The University will be glad at any time to advise with teachers and principals regarding particular books or problems peculiar to individual needs, and to suggest from the following lists the books most suitable in each instance:

Bibliographies and General Reference Works.

- A Manual of Historical Literature. C. K. Adams. About \$3.00; Harper & Bros. An old, but still the only, work in English attempting to cover the entire field of history with critical estimates of works cited. Is exceedingly useful, and exceptionally trustworthy.
- Institutes of General History. E. Benjamin Andrews. About \$2.00; Silver, Burdette & Co. Each chapter is preceded by a select bibliography of English, French, German and Italian works. The whole arrangement of the book itself, and the author's brief comments and notes are exceedingly suggestive, although the reader must not infrequently disagree with the writer in his necessarily brief statements.
- ✓ Guide to the Study of American History. Channing and Hart. About \$1.50; Ginn & Co. Contains a great deal of information and many helpful suggestions as to study and class work. It names "working libraries" varying in price from five to one hundred dollars, and lists also most of the books available on the period of exploration and colonization, the colonial period proper and the various periods of United States History under the Constitution.
- A Student's History of England. Gardiner. \$2.75; Longmans, Green & Co. A narrative history of England from earliest times to 1874, with a summary of events from 1874 to 1885. Has many genealogical tables, numerous authentic illustrations from documents, paintings, etc., of the reign of nearly every English sovereign, and, at the close of each part, has a list of books recommended for the further study of that part.
- A School Atlas of English History. Gardiner. \$1.50; Longmans, Green & Co. Several copies are desirable, depending upon the size of classes. The numerous maps, plans and diagrams are almost as helpful in studying general European History, as in studying the History of England.
- ✓ The Literature of American History. Larned (editor of). \$6.00; published for the American Library Association by Houghton, Mifflin & Co. A list of sources and books for all periods of American History and all sections of the North American Continent. The brief review and estimate of each book is signed by the historian who makes it. The work includes all sources and books on American History down to the year 1899. It is indispensable to the student of American History.
- ✓ History for Ready Reference and Topical Reading. Larned. 6 vols. Costs about \$30.00; C. A. Nichols Co., Springfield, Mass. The publishers

should be written to direct for quotation of price. The sixth volume deals with recent history, including the Spanish-American War, the South African War, the Hague Court, etc., etc. The work is monumental in its conception and is excellently carried out. In brief, the plan is to arrange in alphabetical order the countries and great topics of history, with a most elaborate and painstaking system of cross references. The countries and topics thus arranged are then treated by excerpts in chronological order from the great writers of history. Practically every standard history published prior to this work is quoted from at length in one or more passages, reference being always given in full to the original volume from which the selection is made. Charters, documents, charts, and a fine series of maps, are scattered through these volumes, so that, all things considered, the work is probably the best single reference work in history that has yet been published. It ought to be especially useful in high-school libraries, and, in case the whole field of history is to be covered at relatively small expense in beginning the accumulation of a history library, the advisability of purchasing this work first of all is suggested.

Ancient History to the Death of Charlemagne. Willis Mason West. \$1.50; Allyn & Bacon. Contains in the appendix a "classified bibliography" covering Primitive Society, Oriental History, Greek History, Roman History, and the Teutonic Period to 800 A. D. No estimate is made of the various books recommended, but the list is discriminating and well arranged.

✓ Epitome of Universal History. Ploetz. About \$2.00; Houghton, Mifflin & Co. The English translation here referred to is by Tillinghast, and is far superior to the original in that there are extensive additions by the translator. The chief value of the work is as a book of dates and summaries, the more important dates being indicated by heavy type.

A Guide Book to Books. Sargent and Whishaw. Henry Frowde, London. This book is a little out of date (published in 1891), but is still of great value, as it contains very brief estimates of the more important works cited. It covers everything from shorthand to trigonometry, including field sports, psychology, technical processes, etc., etc. Its historical references are very good. It claims to have been compiled throughout by specialists in every field mentioned. Cost is about \$3.00.

A Guide to Systematic Readings in the Encyclopædia Britannica. James Baldwin. About \$1.50; Werner Co. Covers many of the topics in the Britannica, and brings together many things usually overlooked. High-school libraries already possessing the Britannica would probably be able to increase the usefulness and usability of it by means of this unpretentious volume. Three courses of reading in history are suggested and outlined.

Subject Index to Universal Prose Fiction. Zella Allen Dixon. Helpful in recommending to pupils reading in fiction based upon, or explanatory of, periods or events in history.

Historical Sources in Schools. Report to the New England History Teachers' Association by a select committee. (Profs. Hazen, Browne, Dean, Farrand, Hart), New York. 75c. 1902; Macmillan Co.

Greek History.

TRANSLATIONS OF SOURCES.

Aristotle, Politics: Translated by Weldon. \$2.50; Macmillan Co.
Demosthenes on the Crown: Translated by Kennedy. \$1.00; Macmillan Co.
Herodotus: Translated by Macaulay. \$4.50; Macmillan Co.
Homer's Iliad: Translated by Lang, Leef and Myers. \$1.50; Macmillan Co.
Homer's Odyssey: Translated by Butcher and Lang. \$1.50; Macmillan Co.
Thucydides: Translated by Jowett. \$3.00; Lothrop.
Xenophon's Anabasis: Translated by Dakyns. \$2.50 per vol., approximately. 3 vols.; Macmillan Co.

SECONDARY SOURCES OF A GENERAL NATURE.

Atlas Antiquus: Kiepert. Leach, Shewell, Sanborn. \$2.00. Several copies desirable, the number depending upon the size of classes.
History of Greece: Curtius. 5 vols., \$10.00; Charles Scribner's Sons.
Western Civilization in Its Economic Aspects: Cunningham. 2 vols., about \$1.50 each; Macmillan Co.
Home Life of the Ancient Greeks: Blümner. \$2.00; Cassell & Co.
Development of the Athenian Constitution. Botsford. \$1.50; Macmillan Co.
Ancient History for Beginners: Botsford. 1902; Macmillan Co.
History of Greece: Bury. \$1.50; Macmillan Co.
The City-State of the Greeks and Romans: Fowler. \$1.00; Macmillan Co.
History of Greece: Grote. 12 vols., \$18.00; Harper & Bros.
A History of Architecture: Hamlin. About \$1.50; Longmans, Green & Co.
History of Greece: Holm. 4 vols., \$10.00; Macmillan Co.
Short History of Greek Philosophy: Marshall. \$1.10; Macmillan Co.
A History of Sculpture: Marquand and Frothingham. About \$1.50; Longmans, Green & Co.
History of Greece: Timayenis. 2 vols., \$3.50; D. Appleton & Co.

SECONDARY SOURCES ON MORE SPECIFIC TOPICS OR PERIODS.

Age of Fable. Bulfinch. \$3.00; Lee & Shepard.
Education of the Greek People. Davidson. \$1.50; D. Appleton & Co.
History of Federal Government in Greece and Italy: Freeman. \$1.00; Macmillan Co.
Handbook of Greek Constitutional History: Greenidge. \$1.25; Macmillan Co.
Classic Myths: Gayley. \$1.65; Ginn & Co.
Handbook of Greek Sculpture: Gardner. \$2.50; Macmillan Co.
History of Classical Greek Literature: Mahaffy. 2 vols., \$4.50; Macmillan Co.
Greek Life and Thought from the Age of Alexander to the Roman Conquest: Mahaffy. \$3.50; Macmillan Co.

Alexander the Great: Wheeler. \$1.50; G. P. Putnam's Sons.
Greece in the Time of Homer: Timayenis.

Roman History.

TRANSLATIONS OF SOURCES.

Livy: Translated by Spillan. 4 vols., \$4.00; Macmillan Co.
Tacitus: 2 vols., \$3.50; Macmillan Co.
University of Pennsylvania: Translations and reprints, 7 vols. now out, at about \$1.50 each; University of Pennsylvania. These reprints run into the life and history of the Mediæval Period in Europe.

SECONDARY SOURCES OF A GENERAL NATURE.

Roman Political Institutions. Abbott. Ginn & Co.
Civilization During the Middle Ages: George Burton Adams. \$2.50; Chas. Scribner's Sons.
The Later Roman Empire: Bury. 2 vols., \$6.00; Macmillan Co.
Decline and Fall of the Roman Empire: Gibbon. An edited edition should be purchased, as later research has corrected Gibbon in many points. Dean Milman edits with copious notes, including the opinions of previous commentators, an edition published by Charles Scribner's Sons at \$3.00, 6 vols. A better and later edition has been prepared by Bury, in 7 vols, \$14.00.
History of Rome: Ihne. 5 vols., \$18.75; Longmans, Green & Co.
History of Rome: Mommsen. 5 vols., \$10.00.
Outlines of Roman History: Pelham. \$1.75; G. P. Putnam's Sons.
Private Life of the Romans: Preston and Dodge. \$1.25; Leach.

SECONDARY SOURCES ON MORE SPECIFIC TOPICS OR PERIODS.

The Roman Empire to 180 A. D.: Bury. \$1.50; Macmillan Co.
Early Roman Empire: Capes. \$1.00; Charles Scribner's Sons.
Age of the Antonines: Capes. \$1.00; Charles Scribner's Sons.
Roman Society in the Fifth Century: Dill. \$2.50; Macmillan Co.
Hannibal: Dodge. \$5.00; Houghton, Mifflin & Co.
Cæsar: Dodge. \$5.00; Houghton, Mifflin & Co.
Cæsar, a Sketch: Froude. \$1.50; Longmans, Green & Co.
Chief Periods of European History: Freeman. \$3.00; Macmillan Co.
Ruins and Excavations of Ancient Rome: Lanciani. \$6.00; Houghton, Mifflin & Co.
Triumvirates: Merivale. \$1.00; Charles Scribner's Sons.
The Church and the Empire, to 170 A. D.: Ramsay. \$3.00; G. P. Putnam's Sons.
Lectures and Essays: Goldwin Smith. \$2.00; Macmillan Co.
Rome and Carthage: R. B. Smith. \$1.00; Charles Scribner's Sons.
Outlines of Church History: Sohm. \$1.10. Translated by Sinclair; Macmillan Co.

Continental European History.

From the foregoing list on Roman History, Adams, Bury, Freeman, Gibbon, Sohm, and the University of Pennsylvania reprints, and, in addition, at least the following works:

European History: George Burton Adams. \$1.50; Macmillan Co. Contains excellent bibliographies, and presents a masterly summary and outline of the general course of European history, with numerous side references to larger works.

Mediaeval and Modern History, an Outline of Its Development: Adams. 1902. Macmillan Co.

Life of Charlemagne: Einhard. 35c; Harper & Bros. A charming and naive life of Charles the Great, by his friend and private secretary. Presents the personal side of the man admirably in very small compass.

Mediaeval Europe, 395-1270: Bémont and Monod. Translated by George Burton Adams. About \$1.50; Henry Holt & Co. One of the best general histories of this period.

Holy Roman Empire: Bryce. Numerous editions. Can be secured in good clear print for 75c. The classic treatment of this topic.

Western Civilization in Its Economic Aspects: Cunningham. Vol. II, Mediaeval and Modern Times (see under Greek History.)

The Intellectual Development of Europe: Draper. 2 vols. About \$2.25; Harper & Bros.

Introduction to the Study of the Middle Ages: Emerton. About \$1.00; Ginn & Co. A charmingly written book for a fifteen-year-old boy.

Mediaeval Europe: Emerton. About \$2.00; Ginn & Co. A continuation of the Introduction to the Middle Ages, but far less readable for young pupils.

Select Documents of the Middle Ages: Henderson. About \$1.50; George Bell in Bohn's library. Contains especially documents relating to the struggle between the Papacy and the Empire.

The Roman and the Teuton: Kingsley. About \$1.50; Macmillan Co. This is a series of lectures written with all Kingsley's charm of style, and delivered before the University of Cambridge. Very readable and highly suggestive.

General View of the Political History of Europe: Lavissee. Translated by Gross. About \$1.00; Longmans, Green & Co. A sweeping, summary view of the course of European History, condensed within 172 pages. Suggestive and readable. Presupposes a good knowledge of European History in general. Ought to prove specially helpful to teachers in keeping the large aspects of European History before their pupils.

History of the Middle Ages: Munro. D. Appleton & Co, 1902. A short but excellent work.

Periods of European History: 8 vols. About \$1.50 per volume, or about \$10.00 all together; Macmillan Co. Period I, The Dark Ages, 476-918. Oman. Period II, The Empire and the Papacy, 918-1273. Tout. Period

III, *The Close of the Middle Ages, 1273-1494*. Lodge. Period IV, *Europe in the Sixteenth Century, 1494-1598*. Johnson. Period V, *The Ascendancy of France, 1598-1715*. Wakeman. Period VI, *The Balance of Power, 1715-1789*. Hassal. Period VII, *Revolutionary Europe, 1789-1815*. Stephens. Period VIII, *Modern Europe, 1815-1899*. Phillips. This "Periods" series is, on the whole, rather dull and uninspiring reading, but is accurate and detailed as to scholarship, and presents in English a wealth of material not easily accessible in any other place. It is probably the best set of books covering mediæval and modern Europe as yet published.

History of Western Europe: Robinson. Ginn & Co., 1903. One of the latest and best books on this subject. It is thoroughly up to date and suitable either as a text-book or as a reference book.

English History.

From the foregoing list on Continental European History, Adams' *Civilization during the Middle Ages*, Bryce, *Cunningham*, Bémont and Monod, *Lavis*, and the following books at least:

Select Documents of English Constitutional History: Adams and Stephens. \$2.25; Macmillan Co. Documents arranged chronologically, under the reigns of successive sovereigns, beginning with William the Conqueror, and ending with Victoria in 1885. All documents are translated into English. An invaluable collection.

The English Constitution. Bagehot. About \$2.00; D. Appleton & Co. Contains also two essays, one on "The Character of Lord Brougham," the other on "The Character of Sir Robert Peel." This book is one of the most brilliant and illuminating expositions of the real significance of the English Constitution. It was written some thirty years ago, and many of the topics then discussed tentatively have since been worked out actually by the course of events. Particularly interesting in its discussion of democracy.

The Working Constitution of the United Kingdom. Courtney. About \$2.00; Macmillan Co. Describes the actual working of the Constitution as it now exists. All the more important practical questions regarding the relations of the mother country and her colonies receive adequate treatment.

The Industrial History of England. H. de B. Gibbin., Methuen & Co., London. A short history of the industrial development of England. Contains a brief annotated bibliography at the end.

A Student's History of England. Gardiner. [See first heading, "Bibliographies and General Reference Works."]

School Atlas of English History. Gardiner. [See above under "Bibliographies and General Reference Works."]

History of the English People. Green. Several editions by various publishers. Price varies from \$2.00 to about \$15.00, and the number of vol-

umes from 4 to 6. The best general history of England that has yet appeared. Valuable as history and as literature.

Liberty Documents, with Contemporary Exposition and Critical Comments Drawn from Various Writers: Mabel Hill. About \$2.00; Longmans, Green & Co. The author calls this "A Working Book in Constitutional History." It begins with 1101 and runs down through English and American History to a discussion of "Liberty in United States Colonies and Dependencies (1898-1899)." A highly suggestive and valuable collection of documents and expositions thereof.

Source-Book of English History. Elizabeth K. Kendall. About \$2.00; Macmillan Co. The author has here "sought to bring together extracts illustrating the dominant interest of each period," and to present such extracts as are "of real value for purposes of study, and yet of a nature to arouse the interest of the boy or girl of sixteen." The attempt is eminently successful. Each extract is accompanied by running comments in the margin. The collection is not a lot of constitutional documents, but rather a series of contemporary comments on English affairs, such as "A Letter from Canute to the English People, 1027;" "A Picture of London, circa 1173;" "The Scots in War;" "The Battle of Towton, 1461;" "Two Sixteenth Century School Boys;" "A Famous Scene in the House of Commons, 1629;" etc., etc.

A History of England for High Schools. Koman and Kendall; Macmillan Co., 1901. Gives also a valuable list of aids to the study of English History.

The English Constitution, a Commentary on Its Nature and Growth: Macy. \$2.00; Macmillan Co. A highly suggestive account of the English Constitution written by an American teacher of wide experience, with the idea of making the significance of the English Constitution intelligible to American readers. Professor Macy states in his preface that "Part I was prepared specially in order that Americans might be able to read with greater profit Bryce's *The American Commonwealth*. To appreciate that great work, the American needs to be well grounded in English politics. He must know the present Constitution in its theory and in its practice." Part II, on "The Growth of the Constitution," keeps in view, also, the understanding of the Constitution as it exists to-day. The views of practically all standard commentators such as Anson, Bagehot, Dicey, etc., are presented in this work *passim*.

Diary of a Journey to England in the Years 1761-1762. Kielmansegge. About \$1.50; Longmans, Green & Co. The translator of this interesting volume, the Countess Kielmansegge, says, "One day, on looking through the library at my German home, I came upon a manuscript written by my husband's great-grandfather, containing a diary of his journey to England in the years 1761-1762, in which he describes—for the benefit of his German family and friends—the coronation of George III., which he witnessed—London and its sights, the society of that day, and his visits to various towns and country places in England."

- A History of Our Own Times. Justin McCarthy. A well-known work, published in many editions, by a number of publishers. Easily obtainable in cheap or expensive form.
- Merchant Adventurers of England, Their Laws and Ordinances, with Other Documents: Compiled and translated by W. E. Lingelbach, Ph. D.; University of Pennsylvania. Reprints handled by Longmans, Green & Co. This work is Second Series, Volume II of the Reprints. The title as quoted exactly describes the book. It is one of the more important recent contributions to the documentary history of the rise of industrial and commercial England.
- The Elements of English Constitutional History. Montague. About \$1.25; Longmans, Green & Co. An excellent little manual in 228 pages.
- English History: Montgomery. Ginn & Co.
- The Expansion of England. Seeley. About \$1.25; Macmillan Co. An old book (published 1883), but still useful and suggestive, as it presents a broad and sweeping view from the standpoint of the philosophical statesman and historian.
- Social England, by Various Writers: Edited by H. D. Traill. 5 vols.; G. P. Putnam's Sons. Write publishers for price. This great, co-operative work professes to give "A Record of the Progress of the People in Religion, Laws, Learning, Arts, Industry, Commerce, Science, Literature, and Manners from the Earliest Times to the Present Day." It is sufficient to say that this tremendous undertaking has been adequately fulfilled.
- Landmarks of English Industrial History. Townsend Warner. \$1.50; Macmillan Co. Title exactly describes this excellent little work.

American History.

The following suggestions pertain more especially to United States History. From the foregoing lists, it would be desirable to have the following as affording a European point of view—Adams and Stephens, Hill, Kendall, Lavissee, Seeley.

American Statesmen: Edited by John T. Morse, Jr. The new library edition has an index volume, and a number of revisions in the text of each volume. If possible, the entire set should be secured. Especially desirable are the volumes on Thomas Jefferson, Alexander Hamilton, Daniel Webster, Andrew Jackson, Henry Clay, John Quincy Adams, John C. Calhoun. The biographies of Washington and Lincoln ought to be added, either in this series or in some other standard works. The publishers should be written to for prices.

American History Series: Charles Scribner's Sons. From \$1.25 to \$1.75 per volume: The Colonial Era, 1492-1756. Fisher. The French War and the Revolution, 1756-1783. Sloane. The Making of the Nation, 1783-1817. Walker. The Middle Period, 1817-1858. Burgess. The Civil War and the Constitution, 1858-1865. Burgess. Reconstruction and the Constitution, 1866-1876. This series is uneven in merit, the most suggestive

work in it being, possibly, Burgess' Middle Period. Burgess' later volumes on the Civil War and Reconstruction should be used in connection with Dunning (see below), or with Garner (see below).

The History of the Last Quarter Century in the United States. E. Benjamin Andrews. 2 vols., about \$6.00; Charles Scribner's Sons. Generously printed and superbly illustrated. Presents the chief events, and foreshadows most of our industrial problems of to-day. Ought to be specially interesting to high school pupils.

History of the United States: Bancroft. About \$10.00; D. Appleton & Co. Last edition in 8 vols., "the Author's Last Revision." Strongly prejudiced in favor of the American point of view, but interesting and profitable for this very reason, as the work is bound to provoke discussion among the pupils who read it. It should be used in connection with other works, and especially with Lecky (see below).

The American Commonwealth: Bryce. 2 vols., unabridged edition. A special price of \$2.00 sometimes available; Macmillan Co.. The standard work from an English standpoint. Invaluable for an understanding of our political institutions.

Guide to the Study of American History. Channing and Hart. (See above, under bibliographies and general reference works.)

The Federalist: Many editions. Probably the best yet issued is that by Paul Leicester Ford. \$1.75; Henry Holt & Co. The wealth of citations to cases, the cross references, and the ample index make this edition exceedingly valuable.

Works on American History: John Fiske. Houghton, Mifflin & Co. Write publishers for prices. Fiske's fine English, his philosophical breadth of view, the general accuracy of his conclusions, his dramatic power combine to make these works of rare interest and suggestiveness to high school pupils.

Epoch Maps: Albert Bushnell Hart. About 50c; Longmans, Green & Co.

American History Told by Contemporaries: Albert Bushnell Hart. 4 vols., \$2.00 per vol, or \$7.00 for the set; Macmillan Co. The volumes are each preceded by a discussion of "sources" of history, their use, etc. This collection differs from MacDonald's collection (see below), in that it consists of excerpts from writers contemporary with the times they describe. It contains such selections as "The Piety of a Sea Rover;" "How to Order a Colony;" "Life of a Southern Planter;" "The Capitulation of Yorktown, 1781;" "Burr's Muster at Blennerhasset Island;" "Capture of the Chesapeake by the Leopard, 1807;" "Why John Brown Broke the Laws;" "Experience of a Blockade-Runner, 1862," etc., etc.

Outline Maps for an Historical Atlas of the United States, Illustrating Territorial Growth and Development: Frank H. Hodder. For class use; Ginn & Co. Write publishers for prices. The only set of outline maps which at all meets the promise of the title page. Prof. Hodder has spent years in elaborating these outlines, and has succeeded in correcting

numerous errors as to boundary lines and details. A full set of directions is printed with the maps.

History of the American Nation: McLaughlin; D. Appleton & Co., 1899.

Larned (see above, under bibliographies and general reference works).

The American Revolution, 1763-1783, being the chapters and passages relating to America from the author's history of England in the eighteenth century: Lecky. Edited by James A. Woodburn. About \$1.25; D. Appleton & Co. An invaluable commentary on the American Revolution. Should be used in connection with Bancroft (see above).

Select Charters and Other Documents Illustrative of American History, 1606-1775; Also Select Documents Illustrative of the History of the United States, 1776-1861: William McDonald. About \$2.00 per volume; Macmillan Co. Titles exactly describe these two valuable works.

Works of Francis Parkman: Several editions; Little, Brown & Co. Write publishers for prices. 16 vols. These volumes possess all the charm of romance, with all the merit of great accuracy and historical research of the most persistent and painstaking sort. Parkman's English, too, is classic, vigorous, delightful, and carries one irresistibly from cover to cover of a volume once it is taken up. Both as history and as English, these books are probably destined to endure for many years.

The Winning of the West: Theodore Roosevelt. 4 vols. About \$10.00; D. P. Putnam's Sons. The only comprehensive treatment of Western United States History.

Expansion of England: Seeley. (See above.)

The Men Who Made the Nation: Edwin Earl Sparks. About \$2.00; Macmillan Co. Excellent biographies of Franklin, Samuel Adams, John Adams, Robert Morris, Hamilton, Washington, Jefferson, Clay, Andrew Jackson, Webster, Horace Greeley, Lincoln. Each statesman is treated as the exponent of some leading idea in American History, or as the representative of a typical set of functions performed by him.

A History of the Presidency: Edward Stanwood. About \$2.00; Houghton, Mifflin & Co. Originally published in 1884 as a "History of Presidential Elections." Republished with many additions in 1898 under the present title, bringing it down to the Free Silver Campaign of 1896. The book gives an account of each Presidential election from Washington down, with the platforms of parties, analysis of the votes, and much interesting and useful material. It is the standard work on this topic.

A History of American Literature During the Colonial Times: Moses Coit Tyler. Vol. I, 1607-1676; Vol. II, 1676-1765. Brief biographies of famous writers, and of writers not so famous but deserving of attention because so representative of their times, together with long excerpts from their writings. Captain John Smith, William Bradford, Thomas Hooker, Roger Williams, Anne Bradstreet, Cadwallader Colden, Cotton Mather, Benjamin Franklin, John Adams, Roger Wolcott and a host of other writers receive adequate and fascinating treatment. Prof. Tyler's English is clear, illuminating, remarkably happy and suggestive, and

- cannot fail to interest the average school boy; G. P. Putnam's Sons. \$2.50 per volume.
- The Literary History of the American Revolution: Moses Coit Tyler. Vol. I, 1763-1776; Vol. II, 1776-1783. Similar in scope and treatment to the foregoing. G. P. Putnam's Sons publish this and the preceding set at \$2.50 per volume.
- The Industrial Evolution of the United States: Carroll D. Wright. About \$1.00; Flood & Vincent, the Chautauqua Press. This unpretentious volume treats most concisely and suggestively the topic named in its title. Mr. Wright, who has long been United States Commissioner of Labor, is the foremost authority in our country in this line.

Civil Government in the United States.

- From the foregoing lists Bryce, the Federalist, Stanwood.
- Manual of the Constitution of the United States: Israel Ward Andrews. About \$1.25; American Book Co.
- The Constitution of the United States at the End of the First Century: Boutwell. About \$1.50; D. C. Heath & Co.
- Civil Government in the United States: John Fiske. About \$1.00; Houghton, Mifflin & Co.
- The Speaker of the House of Representatives: M. P. Follett. About \$1.50; Longmans, Green & Co.
- Civil Government of Colorado: Dorus R. Hatch. About \$1.00; Centennial School Supply Co., Denver, Colo.
- The American Government, National and State: B. A. Hinsdale. About \$1.50; Werner School Book Co.
- Government in State and Nation: James and Sanford. About \$1.25; Charles Scribner's Sons. Gives bibliography at end of work.
- History of American Politics: Alexander Johnston. About \$1.00; Henry Holt & Co.
- Congressional Committees: Lauros G. McConachie. \$1.75; T. Y. Crowell & Co.
- The Government of the American People: Strong and Shafer. About \$1.25; Houghton, Mifflin & Co.
- The State, Elements of Historical and Practical Politics: Woodrow Wilson. About \$2.50; D. C. Heath & Co.

III. POLITICAL ECONOMY.

- Dictionary of Political Economy: R. H. Palgrave. 3 vols.; Macmillan Co. The best reference work on the subject. Thoroughly comprehensive, scientifically accurate and complete.
- Cyclopedia of Political Science: J. J. Lalor. 3 vols.; Cary & Co., Chicago. While this work does not cover an especially wide range of subjects, the articles are exhaustive and able. Special attention is paid to United States History and Politics.

- Encyclopedia of Social Reform: W. D. P. Bliss. Funk & Wagnalls Co. This work covers nearly the whole field of the social sciences, and is thoroughly up to date. The articles are concise and usable.
- History of Bimetallism in the United States: J. L. Laughlin. D. Appleton & Co. A history of the coinage of the country. It is an able and clear representation of the facts, though it does not include the history of the last ten years.
- Municipal Government in Great Britain: Albert Shaw. Century Co. A most interesting account of the governments of the leading cities of England and Scotland, written from personal study and inspection.
- Municipal Government in Continental Europe: Albert Shaw. Century Co. Similar to the above, only treating of the governments of Paris and of the cities of Germany.
- American Charities: Amos G. Warner. T. Y. Crowell & Co. Covers the entire subject, and is especially valuable from a practical point of view. It is a careful study of the causes and treatment of poverty and pauperism.
- Punishment and Reformation: F. H. Wines. T. Y. Crowell & Co. A scientific study of the best methods of dealing with crime by one of the leading specialists in the United States.
- The American Commonwealth: James Bryce. Macmillan Co. The most valuable of all works on American institutions.

IV. MATHEMATICS.

History and Philosophy of Mathematics.

- Cajori's History of Mathematics: \$3.50; Macmillan Co. Cajori is the first American historian of general mathematics. His book is one of the best published in the English language, and treats the subject from the earliest beginning of science up to the present time.
- Cajori's Elementary History of Mathematics: \$1.50; Macmillan Co. This valuable little book is partly an abbreviation of the "History of Mathematics," with particular reference to the elementary branches of mathematics and the teaching of mathematics. In addition, it contains an interesting historic account of the so-called "modern geometry of the triangle," which should prove particularly interesting for high school teachers.
- Cajori's History and Teaching of Mathematics in the United States: Bureau of Equipment, Department of the Interior, Washington, D. C. Every teacher of mathematics in the United States ought to be familiar with this work.
- Ball's History of Mathematics: \$3.25; Macmillan Co.
- Ball's A Primer History of Mathematics: 65c; Macmillan Co.

Both of these books give an interesting account of the history of mathematics from an English standpoint. For this reason, references to

- English authors and mathematics should be studied in comparison with Cajori's and Fink's histories.
- Fink's Brief History of Mathematics: \$1.00; Open Court Publishing Co. An admirable translation of Fink's *Geschichte der Elementar Mathematik*. It is not as extended as Cajori's history and should also be met with favor. Biographical notes of mathematicians are added at the end of the book.
- Young's Teaching of Mathematics in Prussia, \$1.00; Longmans, Green & Co. Professor Young of Chicago University has personally investigated the school systems of Prussia. His report contains many valuable suggestions and should be extensively read.
- Gow's Greek Mathematics: \$3; Macmillan Co. Everybody interested in the achievements of the giant minds of antiquity should study Gow's book. It is inspiring for the teacher.
- De Morgan's Study and Difficulties in Mathematics: \$1.00; Open Court Publishing Co. De Morgan is one of the greatest logicians of mathematics. His thorough grasp of the philosophy of mathematics and the fluent expression of a polished language make all of De Morgan's writings fascinating, and it is profitable to read them.
- McLellan and Dewey's Psychology of Number: \$1.50; D. Appleton & Co.
- Dedekind's Essays on Number: \$1.00; Open Court Publishing Co. These are two essays which touch upon the foundations of mathematics, a subject that stands in the foreground of modern mathematical interest. They are also typical. The first lays particular stress upon psychology, the other, however, upon the pure mathematical concept.
- Ball's Mathematical Recreations: \$2.50; Macmillan Co. Paradoxes in Arithmetic, Algebra and Geometry, artifices with numbers, mathematical plays and games, etc., form the contents of this interesting book. Its excellency may be judged from the fact that it called forth a French translation.
- Schubert's Mathematical Essays: \$1.00; Open Court Publishing Co. Treats of the three famous problems of antiquity; the doubling of the cube (Delian problem), the trisection of the angle, and the squaring of the circle. It contains also an instructive account of the fourth dimension. Prof. Schubert is well known to the American scientific public through his writings in the "Monist."
- Dodgson's Curiosa Mathematica: 75c; Macmillan Co. Mathematical curiosities which may be used in supplementing Ball's and Schubert's works.
- Whitworth's Choice and Chance: \$2.25; Macmillan Co.. A masterly exposition of mathematical probabilities and their applications.
- Laplace's Philosophical Essay on Probabilities: \$1.50; John Wiley & Sons. An English translation of Laplace's introduction to his celebrated *Calculus of Probabilities*.

Connant's Number Concept: \$2.00; Macmillan Co. A masterly historic and critical account of the origin and development of number-systems.
Fine's Number Systems of Algebra: \$1.00; Leach, Shewell & Sanbor. History and theory of rational, irrational and complex numbers.

Arithmetic.

Ray's Higher Arithmetic: \$1.00; American Book Co.
Beman & Smith's Higher Arithmetic: \$1.00; Ginn & Co.
The Science of Arithmetic: Olney. \$1.00; Sheldon & Co.

These are standard books and contain much valuable information for the teacher of arithmetic.

McLellan's "Public School" Series of Arithmetic, Four Parts: \$1.75; Macmillan Co. Based on McLellan and Dewey's Psychology of Number. This series involves many new ideas in the methods of teaching arithmetic.

Finkel's Arithmetical Solution Book: \$1.00; Kibler, Cokeley & Co., Kidder. One of the best and complete collections of arithmetical problems.

Algebra.

The Hall & Knight Series on Algebra: \$2.60; Macmillan Co.
Taylor's Elements of Algebra: \$1.50; Allyn & Bacon.
Jarman's Algebraic Factors: 75c; Macmillan Co.

These are three good books for elementary work. For other standard works, like Wentworth's, etc., reference is made to the catalogues of various publishers.

Geometry.

The Foundations of Geometry: Hilbert. \$1.00; Open Court Publishing Co. Within a few years this fundamental work of Hilbert has been translated into French and English. It deals with the postulates and axioms of geometry in a new and original manner and has attracted the attention of mathematicians all over the world.

Casey's Sequel to Euclid: \$1.00; Hodges, Figgis & Co. A rich collection of advanced problems in plane geometry. The proves are mostly metrical. Numerous original problems at the end of every chapter give the student an opportunity for independent work.

Mahler's Ebene Geometrie: 25c; Goeschel, Stuttgart. An admirable little book. The figures are in two colors, which adds materially to the efficiency of the book.

Holgate's Elementary Geometry, Plane and Solid: \$1.50; Macmillan Co. Distinguished by the accuracy of the statements and proofs. Reviews at the end of each chapter form one of the valuable features of the book.

Geometric Exercises in Paper Folding: Sundara Row. \$1.00; Open Court Publishing Co. Many new ideas for the teaching of elementary geometry may be gained from this original treatment of geometric problems.

Reye's Geometry of Position: \$2.00; Macmillan Co. A systematic treatment of projective geometry by one of the best authorities on this subject. The superiority of projective methods in the treatment of conics and other products of projectivity appears conclusively from this treatise. It is elementary and accessible to readers of moderate geometrical training.

Trigonometry.

Ashton and Marsh's Plane Spherical Trigonometry: Charles Scribner's Sons, 1902.

Crockett's Elements of Plane and Spherical Trigonometry and Tables: American Book Co.

Graphics.

Wilson's Graphics: \$4.00; Macmillan Co. A treatise on the art of drawing, lettering, rendering, descriptive geometry, shades, shadows and perspective, tracing of curves, etc. It is a standard work and its typography is unexcelled.

Walter's Course in Drawing: \$1.00; Crane, Topeka. A systematic treatise based upon geometrical and lineal drawing.

MacCord's Elements of Descriptive Geometry: \$3.00; John Wiley & Sons.

Wolf's Elementary Course in Descriptive Geometry: \$3.00; John Wiley & Sons.

It is desirable that in the teaching of geometry to beginners, extensive use should be made of constructions, models and graphic representations. In other words, a closer relation between geometry and graphics should be established. Of course, the foregoing works could not be used as text-books in this connection, but they may offer guiding principles also for elementary instruction.

General Mathematics.

Goodwin's Elementary Course of Mathematics: \$3.00; Deighton, Bell & Co.

Davies & Peck's Mathematical Dictionary: \$4.00; A. S. Barnes & Co.

Elwood's Problems in Arithmetic, Algebra and Geometry: \$1.00; American Book Co.

Holzmüller's Methodisches Lehrbuch der Elementar Mathematik: \$3.00; Teubner, Leipzig.

All four books mentioned above contain much valuable material in the different branches of elementary mathematics. Holzmüller's Methodisches Lehrbuch der Elementar Mathematik is a typical German text-book by an author who stands high in his profession.

V. GEOLOGY AND PHYSIOGRAPHY.

Text-Books of Like Grade.

A Commercial Geography: Adams. D. Appleton & Co., 1901. (Twentieth Century Text-Books). Very good.

Elementary Physical Geography: Davis. Ginn & Co., 1902. A text which is in every way standard, written by the leader of physiography in the United States. It is a little difficult for lower classes in high schools and for teachers who have no preparation outside the text book.

Physical Geography: Dryer. American Book Co. A book by an up-to-date teacher, reliable and easier than Davis. It contains many descriptions of parts of the United States.

Introduction to Physical Geography: Gilbert and Brigham. D. Appleton & Co., 1902. A very attractive book for text or reading. Mr. Gilbert has long been prominent on the United States Geological Survey, and Prof. Brigham is an up-to-date teacher of geology.

Teachers' Guide and Laboratory Exercises: Gilbert and Brigham. (To accompany above work.)

Physical Geography: Tarr. Macmillan Co. A very readable text, which is generally liked by students. The book is rather larger than others, but not more difficult.

Elementary Physical Geography: Redway. Charles Scribner's Sons, 1901.

Common Minerals and Rocks: Crosby. D. C. Heath & Co.

Minerals, and How to Study Them: Dana. Wylie & Sons.

The last two mentioned texts are the best which can be recommended for teachers who wish to acquire familiarity with minerals by home work. Either should be accompanied by sets of typical specimens. Advertisements of such may be obtained by writing to E. E. Howell, 612 Seventeenth street N. W., Washington, D. C. \$1.50 up.

Geologies for Reference and Advanced Reading.

An Introduction to Geology: Scott. Macmillan Co. A thoroughly good text, not too difficult for students who wish to read something in advance of what they get in the high-school course in physical geography. It is sufficiently complete to be used as a reference book.

Compend of Geology: Le Conte. Can be used easily by high-school pupils.

It is a popular book, by one of the most eminent of American geologists.

Elements of Geology: Le Conte. D. Appleton & Co. A very good book for teachers. It is sufficiently complete for a reference book for pupils and teacher.

A Text-Book of Geology: Brigham. D. Appleton & Co., 1901. Written for high schools, and might be used with upper classes instead of physical geography. If a text in geology is to be used at all in high schools of this State, this one is not excelled by any now in print.

Economic Geology of the United States: Tarr. Macmillan Co. Should be on hand as a reference book, but it is also a very readable book, and will doubtless be much used by pupils who are interested in science.

Elementary Meteorology: Davis. Ginn & Co. A standard work, explaining the phenomena of the atmosphere. It affords the best preparation to those who must teach the physical geography of the air.

Collateral Reading.

Physiography of the United States: American Book Co. A series of monographs on general processes and on various areas of the United States. It should be read through thoroughly by every teacher of physical geography, and will delight many pupils.

Realm of Nature: Mill. Charles Scribner's Sons. One of the best books for reading and reference, both for teacher and pupil. It supplements rather than duplicates the text.

Lakes of North America: Russell. Ginn & Co.

Glaciers of North America: Russell. Ginn & Co.

Rivers of North America: Russell. G. P. Putnam's Sons.

Volcanoes of North America: Russell. G. P. Putnam's Sons.

The four last mentioned texts are called reading books in physical geography. They are written in popular style, much more extended, but not more difficult, than the text book. They can be used from eighth grade to college, inclusive.

Physiography: Huxley. D. Appleton & Co. The principles of physiography applied to the Thames Basin, showing their influence on the scenery and conditions of life.

Lessons in the New Geography: Trotter. D. C. Heath & Co. The treatment of a few phases of physical geography in such a way as to show its relations to other sciences and to life in general.

Story of Our Continent: Shaler. Some of the elementary facts of geology so related as to be understood by all and to show their close relation to conditions of life.

Aspects of the Earth: Shaler. Charles Scribner's Sons. A series of descriptions of interesting phenomena, written in fine style, and calculated to stimulate further study.

Rocks, Rock Weathering and Soils: Merrill. Macmillan Co. A book for teachers and to which the more advanced pupils may be referred. It should make the teacher familiar with many common phenomena of rocks, which are the best possible material for outdoor lessons.

International Geography: Mill. \$3.50; D. Appleton & Co. A 1,100-page handbook of geography, physical, political, etc., written by eminent authorities on each country. The book is highly interesting as a reading book, text or reference book.

Economic Interpretation of History: Seligman. Macmillan Co., New York. This book is exceedingly valuable for every teacher of history and geography.

Journals.

Journal of Geography: \$1.50 year. Address, The editor of the Journal of Geography, Winona, Minn. A journal whose purpose it is to stimulate both the study and the teaching of geography. Its articles abound in illustrations of the relations of geography to life.

National Geographic Magazine: \$2, if the principal becomes a corresponding member of the National Geographic Society. Write to The National Geographic Society, Washington, D. C., asking for information about membership. The \$2 cover all fees. A magazine similar to the one just mentioned, which pays less attention to the teaching of the subject, but contains valuable geographic material.

VI. BOTANY.

Texts.

- Plants, a Text-Book of Botany: Coulter. This is one of the most recent text-books of a general nature, giving an introduction to all the lines of botanical work. The language is simple, the subject matter accurate.
- Morphology of Spermatophytes: Coulter and Chamberlain. Twentieth Century Text-Book; D. Appleton & Co.
- Botany All the Year Round: E. F. Andrews. American Book Co., 1903. Contains useful list of reference books, etc.
- Elementary Text-Book of Botany: Vines. This is not really "elementary," but a rather extended work, written in technical language. Accurate.
- Plant Physiology: Ganong. A laboratory manual, giving directions for experimentation and study. Many of the experiments described can be performed with simple apparatus.
- Practical Botany: Strasburger and Hillhouse. This is a laboratory manual, giving directions for morphological study. Very valuable to the teacher who has not had extensive training in laboratory methods.
- Key to the Rocky Mountain Flora: Nelson. A book giving descriptions of the more common plants of the region, with keys for their identification. Useful in giving pupils a start in the study of systematic botany.
- Manual of Rocky Mountain Flora: Coulter. Issued twenty years ago, and hence very incomplete. It is, however, the only manual which gives most of the seed plants of the region.
- Manual of the Plants of the Northeastern States: Britton. A strictly modern work, describing the plants of the region named, and giving most of the plants growing on the plains of Colorado.
- Plant Physiology: Reynolds Green. One of the most recent and best accounts of the phenomena of plant life. It is written in a readable style.
- Natural History of Plants: Kerner and Oliver. A four-volume work of great interest. It discusses all phases of botanical study, and is useful as a reference work, especially in ecology.
- The Teaching Botanist: Ganong. A book of essays on the subjects to be chosen for presentation and errors more commonly made by teachers, with a discussion of the relation of botany to the other sciences, and of the sciences to other subjects in the high school curriculum.
- From the Greeks to Darwin: Osborn.
- Darwin: Any or all of the works of this great master.

- The Foundations of Botany: Bergen. (Rocky Mountain Edition); Ginn & Co., New York, 1901.
- Botany, an Elementary Text-Book: L. H. Bailey; Macmillan Co., 1901.
- The Survival of the Unlike: L. H. Bailey. Macmillan Co., 1896.

Journals.

- The Botanical Gazette, University of Chicago, monthly, \$4.00.
- Bulletin of the Torrey Botanical Club, Lancaster, Pa., \$2.00.
- Forest Leaves, Pennsylvania Forestry Association, Philadelphia, bi-monthly, \$1.00.
- The Plant World, Binghamton, N. Y., bi-monthly, \$1.00.
- Science, Lancaster, Pa.; Macmillan Co., weekly, \$5.00.

VII. ZOOLOGY.

- Outlines of Zoology: Thomson. A modern work, giving the best one-volume account of the animal kingdom yet written.
- Practical Zoology: Marshall and Hurst. A valuable laboratory manual, giving minute and accurate directions for the dissection of certain animals.
- The Human Body (advanced course): Martin. This is the standard reference book for general subjects of anatomy and physiology of animals. It is rather non-technical, as compared with text-books of physiology used in medical schools.
- Animal Life: Jordan and Kellogg. Devoted to the structure and habits of animals. Quite elementary, but very useful in describing features of ecological significance not treated in most texts.
- Manual of Vertebrates: Jordan. A work to be used for the classification and identification of vertebrate animals.
- Study of Animal Life: Thomson. A condensed account of the life histories and habits of animals, with allusions to the origin of variations and to evolutionary subjects generally.
- Introduction to Zoology: Schmeil. A semi-popular work, describing some of the better known animals of the different phyla. Excellent for ecology. Not always strictly accurate in morphological questions.
- Naturalist on the Amazon: Bates. Interesting accounts of animals and their habits, with discussions of evolutionary topics.
- Ants, Bees and Wasps: Lubbock. The only work which is full and accurate covering the subject. Written in an easy style.
- Darwin and After Darwin: Romanes. An account of the development of the doctrine of evolution by one of Darwin's contemporaries.
- Text-Book of Zoology: Parker and Haswell. 2 vols. An excellent general text. Examples are given of the different phyla and comparisons made with other related genera.
- From the Greeks to Darwin: Osborn. A general historical account of the development of the doctrine of evolution from the earliest times.

The Descent of Man; The Origin of Species, etc.: Darwin. The teacher should be familiar with some of the writings of the greatest naturalist who ever lived.

Darwinism: A. R. Wallace. Macmillan Co., 1891. A good epitome.

Life and Letters of Huxley. 2 vols.; Macmillan Co., 1900.

Life and Letters of Darwin: 2 vols.; D. Appleton & Co., 1887.

The Foundations of Zoology: W. K. Brooks. Macmillan Co., 1899.

Animal Life and Intelligence: C. Lloyd Morgan. Ginn & Co., 1895.

Animal Behavior: C. Lloyd Morgan. Edward Arnold, 1900.

Man's Place in Nature: Huxley. Macmillan Co., 1895.

VIII. PHYSIOLOGY.

Martin's Human Body: (Advanced course). Henry Holt & Co. Good general reference work.

Stirling's Practical Physiology: P. Blakiston Son & Co. This is a laboratory guide.

Thomson's Outlines of Zoology: D. Appleton & Co. Chapters 2, 3, 4 and 17 contain useful physiological material.

Waller's Human Physiology: Longmans, Green & Co. A perfectly safe reference book in all cases. The most reliable and scholarly work there is in one volume.

James' Psychology: Henry Holt & Co. Useful for reference in the work on the senses and sense organs and on the physiology of the brain and the nervous system generally.

Lectures on the Action of Medicines: Brunton. Macmillan Co., 1890.

The Physiology of the Senses: McKendrick and Snodgrass. Charles Scribner's Sons, 1893.

IX. PHYSICS.

Probably the best text-books in Physics for high school use are Carhart & Chute's, and Hoadley's. The former is particularly well adapted to a course, in which laboratory work occupies a large part of the student's time, and the latter is written in a clear and engaging manner, and contains descriptions of a large number of exceedingly interesting experiments.

The following books are adapted to the needs of students in a first-year University course. They are intended to be used as text-books in such a course, but may be used as reference books in high school work:.

General Physics: Hastings and Beach.

University Physics: Carhart.

Theory of Physics: Ames.

Physics: Barker.

Natural Philosophy: Deschanel.

Text-book of Physics: Anthony and Bracket.

Elements of Physics: Henderson and Woodhull; D. Appleton & Co., 1900.

Riecke's Experimental Physik, published in German, is also a good book of much the same character as the above.

The following books are of about the same grade as the above list, but are fuller in detail, and better adapted for use as reference books:

Text-book of the Principles of Physics: Daniel.

Physics: Ganot.

The following books are of an interesting and popular nature:

Heat a Mode of Motion: Tyndall.

On Sound: Tyndall.

On Light: Tyndall.

Popular Scientific Lectures: Ernst Mach. Translated by McCormack.

S. P. Thompson's Electricity and Magnetism is a delightful and altogether admirable book on the subject, well adapted for use as a text-book in a first-year University course, or as a reference book for students of elementary electricity.

Preston's Theory of Light and Theory of Heat are admirable on the subjects, adapted for use as reference books or as text-books in second year courses in University work. For the most part they are descriptive, but in parts require a slight acquaintance with Calculus.

A Text-Book of Astronomy: Comstock; D. Appleton & Co., 1901.

Scientific Memoirs: Edited by Joseph S. Ames, Professor of Physics and Director of the Physical Laboratory, Johns Hopkins University. Fifteen volumes, bound in cloth, about 150 pages each, prices varying from 60c to \$1.00 per volume; American Book Co., New York, 1898 to 1902. This is a physical classic series, consisting of translations or reprints of memoirs of the discoverers in physical science from its rise to the present day. Each subject is treated in one volume and has a separate editor. The editor has selected memoirs and parts of memoirs bearing on the subject, adding notes from his own hand for connection and elucidation. Each volume also contains a short preface, chiefly historical, and a short biographical sketch of each of the writers from whose memoirs he has selected. References to allied papers are found in a bibliography at the end of each volume. The series offers no particular mathematical difficulties to the average reader and presents, on the whole, delightful reading to any one at all interested in the subjects treated. Following is a list of the memoirs:

The Free Expansion of Gases: Memoirs by Gay-Lussac, Joule, and Joule and Thomson. Edited by Dr. J. S. Ames, Johns Hopkins University.

Prismatic and Diffraction Spectra: Memoirs by Joseph von Fraunhofer. Translated and edited by Dr. J. S. Ames, Johns Hopkins University.

Röntgen Rays: Memoirs by Röntgen, Stokes, and J. J. Thomson. Translated and edited by Dr. George F. Barker, University of Pennsylvania.

The Modern Theory of Solution: Memoirs by Pfeffer, Van't Hoff, Arrhenius and Raoult. Translated and edited by Dr. H. C. Jones, Johns Hopkins University.

- The Laws of Gases: Memoirs by Boyle and Amagat. Edited by Prof. Carl Barus, Brown University.
- The Second Law of Thermodynamics: Memoirs by Carnot, Clausius and Thomson. Translated and edited by Prof. W. F. Magie, Princeton University.
- The Fundamental Laws of Electrolytic Conduction: Memoirs by Faraday, Hittorf, and Kohlrausch. Edited by Dr. H. M. Goodwin, Massachusetts Institute of Technology.
- The Effects of a Magnetic Field on Radiation: Memoirs by Faraday, Kerr and Zeeman. Edited by Dr. E. P. Lewis, University of California.
- The Laws of Gravitation: Memoirs by Newton, Bouguer, and Cavendish. Translated and edited by Prof. A. S. Mackenzie, Bryn Mawr College.
- The Wave Theory of Light: Memoirs by Huygens, Young, and Fresnel. Translated and edited by Prof. Henry Crew, Northwestern University.
- The Discovery of Induced Electric Currents: Vol. I. Memoir by Joseph Henry. Edited by Dr. J. S. Ames.
- The Discovery of Induced Electric Currents: Vol. II. Memoir by Michael Faraday. Edited by Dr. J. S. Ames.
- The Foundations of Stereo-Chemistry: Memoirs by Pasteur, Van't Hoff, Le Bel and Wislicenus. Translated and edited by Prof. G. M. Richardson, Leland Stanford, Jr., University.
- The Expansion of Gases: Memoirs by Gay-Lussac and Regnault. Translated and edited by Dr. W. W. Randall, Mackenzie School.
- The Laws of Radiation and Absorption: Memoirs by Prévost, Stewart, Kirchhoff, and Bunsen. Edited by Prof. D. B. Brace, University of Nebraska.

X. CHEMISTRY.

- A Treatise on Chemistry: Vol. I, Vol. II, Parts 1 and 2, 3 vols. Roscoe and Schorlemmer. D. Appleton & Co.
- The Principles of Theoretical Chemistry: Remsen. Lea Bros., Philadelphia.
- History of Chemistry: Ladenburg. Simpkin, Marshall, Hamilton, Kent & Co.
- Qualitative Analysis: Prescott and Johnson. Fifth edition; D. Van Nostrand.
- Quantative Analysis: Fresenius. New system; John Wiley & Sons
- Physical Chemistry for Beginners: Van Deventer. John Wiley & Sons.
- Organic Chemistry: Richter. P. Blakiston & Co.
- Outline of Industrial Chemistry: Thorpe. Macmillan Co.
- Manual of Assaying: Brown. E. H. Sargent & Co., Chicago.
- Elements of Metallurgy: Harrison. Blackie & Son.
- The Atomic Theory: Wurtz. D. Appleton & Co.
- The Gases of the Atmosphere: Ramsey. Macmillan Co.
- The Chemistry of Photography: Mendola. Macmillan Co.

The following books may be found useful, but are, however, somewhat more advanced and more expensive.

History of Chemistry: Ernst von Meyer. Macmillan Co.

Outlines of General Chemistry: Ostwald. Macmillan Co.

Principles of Chemistry: Muir. Macmillan Co.

Treatise on Chemistry: Roscoe and Schorlemmer. Vol. III; D. Appleton & Co.

Manual of Practical Assaying: Furman. John Wiley & Sons.

Qualitative Analysis: Fresenius. John Wiley & Sons.

Any of the above books can be obtained at a discount of 20 per cent. from D. Van Nostrand & Co., 23 Murray street, New York.

XI. APPLIED SCIENCE.

Scientific books introductory to applied science for engineering and technical schools:

Modern Framed Structures: Johnson. \$10.00; John Wiley & Sons. A treatise on steel building, bridge and other designs.

Sewage, and the Bacterial Purification of Sewage: Rideal. \$3.50; John Wiley & Sons. A treatise on the drainage of cities and towns, and the scientific treatment of their refuse matters and waste products.

Water Supply, Chemical and Sanitary: Nichols. \$2.50; John Wiley & Sons. A treatise on the supply of water to cities, and the chemical process for purification of drinking waters.

Descriptive Geometry: MacCord. \$3.00; John Wiley & Sons. A text-book for schools and colleges on the elements of descriptive geometry.

Highway Construction: Byrne. \$5.00; John Wiley & Sons. A book explaining the methods of constructing the various kinds of roads known to the civil engineer.

Elementary Lessons in Electricity and Magnetism: Thompson. \$1.40; Macmillan Co. A good general text-book, introducing the science of electricity and magnetism.

Railroad Construction—Theory and Practice: Walter L. Webb. \$4.00; John Wiley & Sons. A book treating concisely the various problems to be dealt with in building a railroad.

Engineering and Architectural Jurisprudence: Wait. \$6.00; John Wiley & Sons. A treatise explaining the law as pertaining to engineering contracts, specifications and work.

Modern American School Building: Birkmire. \$4.00; John Wiley & Sons. An architectural and structural treatment of the design of school buildings.

Simple Elements of Navigation: Young. \$2.00; John Wiley & Sons. A text book relating to the problems of finding one's position at sea.

Notes on Assaying: Ricketts and Miller. \$3.00; John Wiley & Sons. A general treatment of the problems of determining the values of ores.

- Practical Astronomy, as Applied to Geodesy and Navigation: Doolittle. \$4.00; John Wiley & Sons. A text-book treating of the problems to be met by the geodesist in studying the size and figure of the earth, and in making world surveys.
- Elements of Geodesy: Gore. \$2.50; John Wiley & Sons. An elementary treatise on geodetic surveying.
- Topographical Surveying: Wilson. \$3.50; John Wiley & Sons. A treatise on surveying in general, and on the making of maps.
- Treatise on Hydraulics: Merriman. \$4.00; John Wiley & Sons. A general text-book treating the laws governing the flow of water.
- Water Supply: Turneure and Russell. \$5.00; John Wiley & Sons. A book explaining the problems to be met in building the waterworks of cities.
- Irrigation Engineering: Wilson. \$4.00; John Wiley & Sons. A book explaining the problems to be met in building irrigation systems.
- Masonry Construction: Baker. \$5.00; John Wiley & Sons. A treatise discussing the materials used in building masonry constructions, and explaining the processes of construction.
- General Astronomy: Young. \$2.75; Ginn & Co. A text-book treating of the general problems of astronomy, explaining astronomical instruments and describing celestial phenomena.
- Explosives: Eissler. \$4.00; John Wiley & Sons. A thorough outline of explosives, their compositions, manufacture and use.
- Sewerage: Folwell. \$3.00; John Wiley & Sons. A text-book outlining the problems of sewer design for cities and towns.
- Water Supply Engineering: Folwell. \$4.00; John Wiley & Sons. A text-book outlining the problems of waterworks design for cities and towns.
- Mechanical Engineering of Power Plants: Hutton. \$5.00; John Wiley & Sons. A descriptive treatise of engines and boilers and all machinery for producing power.
- Theory and Practice of Surveying: Johnson. \$4.00; John Wiley & Sons. An excellent text-book, describing the instruments used by the surveyor, and explaining the methods of making all kinds of surveys.
- Civil Engineering: Patton. \$7.50; John Wiley & Sons. A general treatise, describing the problems of bridge, highway, railroad, etc., designs.
- Hydraulic Cement: Spaulding. \$2.00; John Wiley & Sons. A book explaining the process of manufacture and the use of cements and mortars.

XII. PSYCHOLOGY.

General Psychology—Systematic Treatises.

- Principles of Psychology: James. 2 vols.; Holt & Co.; Macmillan Co. Abridged and briefer course.
- Psychology, Descriptive and Explanatory: Ladd. Charles Scribner's Sons; Longmans, Green & Co. Abridged in Elements of Descriptive Psychology.

Analytic Psychology: Stout. 2 vols.; Swan, Sonnenschein & Co; Macmillan Co.
 Lectures on Human and Animal Psychology: Wundt.
 Outlines of Psychology: Höffding. Macmillan Co.
 The Power of Thought: Sterrett. Charles Scribner's Sons.
 Handbook of Psychology: Baldwin. 2 vols.; Henry Holt & Co.; Macmillan Co. Abridged in Elements of Psychology.
 Story of the Mind: Baldwin. D. Appleton & Co.
 Articles in Johnson's Universal Cyclopedia: Baldwin. Johnson Company, New York.

Psychology of the Child.

The Mind of the Child: Preyer. 2 vols.; D. Appleton & Co.
 Intellectual and Moral Development of the Child: Compayre. 2 vols.; D. Appleton & Co.
 Studies of Childhood: Sully. D. Appleton & Co.; Longmans, Green & Co.
 Mental Development in the Child and the Race: Baldwin. Macmillan Co.
 Introduction to Psychology: Calkins. Macmillan Co., 1901.
 Psychology of Childhood: Tracy. Boston, 1894.
 The Child; A Study in the Evolution of Man: Chamberlain. New York, 1900. Contains the best summary of facts in child psychology and best bibliography yet published.

Physiological Psychology.

Introduction to Physiological Psychology: Ziehen. Swan, Sonnenschein & Co.; Macmillan Co.
 Elements of Physiological Psychology: Ladd. Charles Scribner's Sons; Longmans, Green & Co. Abridged in Outlines.
 The Growth of the Brain: Donaldson. Walter Scott; Charles Scribner's Sons.

Experimental Psychology.

Outline of Psychology: Külpe. Swan, Sonnenschein & Co.; Macmillan Co.
 Course in Experimental Psychology: Sanford. D. C. Heath & Co.
 The New Psychology: Scripture. Walter Scott; Charles Scribner's Sons.
 Analytical Psychology: Witmer. Ginn & Co.
 Experimental Psychology: Titchener. 2 vols.

Animal and Evolutionary Psychology.

Mental Evolution in Animals and Man: Romanes. 2 vols.; D. Appleton & Co.
 Animal Intelligence: Romanes. D. Appleton & Co.
 Darwin and After Darwin: Romanes. 3 parts; Open Court Publishing Co.; Longmans, Green & Co.

Comparative Psychology: C. Lloyd Morgan. W. Scott; Charles Scribner's Sons.

Animal Life and Intelligence: C. Lloyd Morgan. Edward Arnold.

Habit and Instinct: C. Lloyd Morgan. Edward Arnold.

Animal Behaviour: C. Lloyd Morgan. Edward Arnold.

The Play of Animals: Groos. D. Appleton & Co.; Chapman & Hall.

The Play of Man: Groos. D. Appleton & Co.

Principles of Psychology: Spencer. 2 vols.; D. Appleton & Co.

The Naturalist in La Plata: Hudson. Chapman & Hall.

Descent of Man: Darwin. D. Appleton & Co.

Origin of Species: Darwin. D. Appleton & Co.

Darwinism: Wallace. Macmillan Co.

Origin and Growth of the Moral Instinct: Sutherland. Longmans, Green & Co., 1898, 2 vols.

The Evolutionary Psychology of Feeling: Stanley. Swan, Sonnenschein & Co.; Macmillan Co.

Mental Development in the Child and the Race: Baldwin. Macmillan Co.

Mental Defect and Disease.

Pathology of Mind: Maudsley. Macmillan Co.

Familiar Forms of Nervous Disease: Starr. Wood, New York.

The Faculty of Speech: Collins. Macmillan Co.

Genius and Degeneration: Hirsch. D. Appleton & Co.

Dictionary of Psychological Medicine: Tuke. P. Blakiston, Son & Co.

Diseases of the Will. Ribot. Open Court Publishing Co.

Diseases of Memory: Ribot. Open Court Publishing Co.

Hypnotism and Allied Topics.

Hypnotism: Moll. Walter Scott; Charles Scribner's Sons.

Alterations of Personality: Binet. D. Appleton & Co.; Chapman & Hall.

Hallucinations and Illusions: Parish. Walter Scott; Charles Scribner's Sons.

Social and Ethical Psychology.

The Laws of Imitation: Tarde. Henry Holt & Co.

The Crowd: Le Bon. Walter Scott; Charles Scribner's Sons.

Studies in Good and Evil: Royce. D. Appleton & Co.

Social and Ethical Interpretations in Mental Development: Baldwin. Macmillan Co.

Educational Psychology.

The Story of the Mind: J. M. Baldwin. 40c; D. Appleton & Co.

On Education: Spencer. D. Appleton & Co.

Education and Heredity: Guyau. Charles Scribner's Sons.

The Application of Psychology to Education: Herbart. Charles Scribner's Sons.

The Psychologic Foundations of Education: Harris. D. Appleton & Co.
Talks to Teachers on Psychology: James. Henry Holt & Co.
Genetic Psychology for Teachers: Judd. D. Appleton & Co.

Philosophy.

Introduction to Philosophy: Paulsen. Henry Holt & Co.
The Spirit of Modern Philosophy: Royce. Houghton, Mifflin & Co.
Basal Concepts in Philosophy: Ormond. Charles Scribner's Sons.
The Will to Believe: James. Longmans, Green & Co.

Psychology and Philosophy.

(Over the Whole Field.)

Baldwin's Dictionary of Philosophy and Psychology, with full bibliographies,
French, German, and Italian equivalents, etc., 3 vols.; Macmillan Co.

Unclassified.

Principles of Sociology: Spencer. D. Appleton & Co.
Principles of Sociology: Giddings. Macmillan Co.
Introduction to Social Philosophy: Mackenzie. Macmillan Co.
Pain, Pleasure, and Æsthetics: Marshall. Macmillan Co.
Inquiries into Human Faculty: Galton. Macmillan Co.
Natural Inheritance: Galton. Macmillan Co.
The Chances of Death: Pearson. 2 vols.; Edward Arnold.

Journals.

The Psychological Review: All departments: Macmillan Co.
The American Journal of Psychology: Orpha, Worcester. Experimental.
Mind: Williams and Norgate. Mainly for philosophy.
Pedagogical Seminary: Worcester, Mass.

XIII. MISCELLANEOUS BOOKS ON SCIENCE.

The study of the history of science is helpful, not only in surmounting difficulties, but by adding interest and zeal to the work. A few biographies are given below:

Michael Faraday, His Life and Work: S. P. Thompson. Century Science Series, \$1.25; Macmillan Co.
Pioneers of Science: O. J. Lodge. \$2.50; Macmillan Co.
Pasteur: P. Frankland. Century Science Series. \$1.25; Macmillan Co.
Humphrey Davey, Poet and Philosopher: T. E. Thorpe. Century Science Series. \$1.25; Macmillan Co.
Charles Darwin and the Theory of Natural Selection: E. B. Poulton. Century Science Series, \$1.25; Macmillan Co.
James Clerk Maxwell, and Modern Physics: B. T. Glazebrook. Century Science Series, \$1.25; Macmillan Co.

- John Dalton: Roscoe. Century Science Series, \$1.25; Macmillan Co.
- Short History of Chemistry: Venable. \$1.00; D. C. Heath & Co. The best short work on the history of chemistry.
- Discoveries and Inventions of the Nineteenth Century: A scientific manual for reading and reference. 12th edition, illustrated, \$2.50; George Rutledge & Son. Deals with a very wide range of scientific discoveries to 1897.
- Progress of the Century: \$2.00; Harper & Bros. A valuable series of papers by the leaders of thought dealing with the progress of thought in the Nineteenth Century.
- Experimental Science: George M. Hopkins. \$4.00; Munn & Co. A popular account of physical phenomena. A great favorite with young people.
- Popular Books on Science: Arabella D. Buckley. D. Appleton & Co.; Geo. N. Morang & Co.
- Short History of Natural Science, and of the Progress of Discovery from the Time of the Greeks Until the Present Day: For the use of schools and young persons. New edition, revised and re-arranged, cloth, \$2.00.
- Fairy Land of Science: Illustrated, cloth, \$1.50.
- Life and Her Children: Glimpses of animal life from the amœba to the insects. Illustrated, cloth, \$1.50.
- Winners in Life's Race, or the Great Backboned Family: Illustrated, cloth, \$1.50.
- Through Magic Glasses: A sequel to the Fairy Land of Science, \$1.50.
- Boys' Book of Inventions: R. S. Baker. Illustrated, \$2.00; Doubleday, Page & Co.
- On the Origin of Species: Six lectures to workingmen. Prof. Huxley. \$1.00; D. Appleton & Co.; Geo. N. Morang & Co. A simple presentation of the subject treated of in Darwin's work, \$1.40; George Rutledge & Co.
- In Nature's Workshop: Grant Allen. Illustrated, \$1.25; William Briggs.
- Flame, Electricity and the Camera: George Iles. Illustrated, \$2.00; Doubleday, Page & Co.
- Everyday Birds: Elementary Studies. Torrey. Illustrated, 75c; Houghton, Mifflin & Co.
- Bird Life: A guide to the study of our common birds. Frank M. Chapman. With 75 full-page colored plates, after drawings by Ernest Seton-Thompson, net \$2.00; William Briggs. The early chapters define the bird, its place in nature, its relation to man, describing the colors, migrations, voices and habits of different varieties. The concluding chapters present the portraits, names and addresses of more than one hundred birds of Eastern North America.
- Familiar Fish. Their Habits and Culture: Eugene McCarthy. \$1.50; D. Appleton & Co.; Geo. N. Morang & Co.
- Our Insect Friends and Foes: How to collect, preserve and study them. Belle S. Cragin. \$1.75; G. P. Putnam's Sons. A work for boys and girls; popular in style.

- Insect World: C. M. Weed. Home Reading Book Series, 60c; D. Appleton & Co.; George N. Morang & Co. Popular in style.
- Mosquitoes: L. O. Howard, Chief Entomologist Department of Agriculture, Washington. Profusely illustrated, \$1.50; McClure, Phillips & Co. The author tells how mosquitoes live, how they carry disease, how they are classified and how they may be destroyed.
- How to Know the Wild Flowers: Mrs. William Starr Dana (Miss Parsons). Illustrated, \$2.00 net, Charles Scribner's Sons; William Briggs. The flowers are arranged according to color. Does not require technical knowledge. The romantic, legendary, literary and other associations are dealt with.
- How to Know the Ferns: Mrs. Dana. \$1.50 net; Charles Scribner's Sons. A book of the same type as the preceding.
- Guide to Wild Flowers: Alice Lounsberry. Illustrated, \$2.50; William Briggs.
- Mushroom Book: N. L. Marshall. Illustrated, \$3.00; William Briggs.
- Bird Portraits: Seton-Thompson. Quarto, cloth, \$1.50; Ginn & Co. Pictures by the artists of familiar birds, printed on heavy coated paper, 8½ by 12 inches in size. Descriptions by Mr. Hoffman of the Audubon Society, accompany Mr. Seton-Thompson's pictures. Seton-Thompson's other works are, of course, also very interesting and useful.
- Wasps and Their Ways: Margaret W. Morley. 8vo., cloth \$1.50; Dodd, Mead & Co. A study of wasps for the general reader. The book deals with the habits, the structure and the history of wasps, and particularly their relations to man. With many illustrations, microscopic and otherwise, from personal observation of the author.
- Squirrels and Other Fur-Bearers: John Burroughs. Cloth, \$1.00. School edition, 60c net; Houghton, Mifflin & Co. With fifteen illustrations in color after Audubon, and a frontispiece from life.
- Moths and Butterflies: Mary C. Dickerson. Large 8vo, cloth, \$2.50, Ginn & Co.; The Copp, Clark Co. Three hundred illustrations, specially prepared for this work.
- Woodpeckers: Fanny Hardy Eckstrom. Square, 12mo.; cloth, \$1.00; Houghton, Mifflin & Co. A comprehensive account of this interesting family of birds, with five colored plates by Louis Agassiz Fuertes and drawings by John L. Ridgway.
- Journey to Nature: J. P. Mowbray. Crown, 8vo, cloth, \$1.50; William Briggs.
- Making of a Country Home: J. P. Mowbray. \$1.50; William Briggs.

XIV. GREEK.

Dictionaries.

- Harper's Classical Dictionary: A large dictionary, giving brief description and explanations of subjects connected with classical antiquity.

- A Dictionary of Classical Antiquities, Mythology, Religion, Literature and Art: Nettleship and Sandys. 3d ed. London, 1895.
- Dictionary of Greek and Roman Antiquities: Smith, Wayte and Marindin. 3d ed. 2 vols. London, 1890-91.

Greek Grammar.

Goodwin's Greek Grammar: Ginn & Co.

History.

- Grote: The best history in several volumes for reference.
- Bury: Macmillan Co. Perhaps the best one-volume history for reference.
- Botsford: Macmillan Co. For high school classes.
- The Life of the Ancient Greeks: Gulick. D. Appleton & Co., 1902. A most excellent work. Gives a good bibliography of works suitable for work in Greek.
- A Survey of Greek Civilization: J. P. Mahaffy. Meadville, Pa., 1896.
- Social Life in Greece from Homer to Menander: J. P. Mahaffy. 3rd ed. London, 1875.
- Greek Life and Thought, from Alexander to the Roman Conquest: J. P. Mahaffy. London, 1896.
- History of Greece: Abbott. Encyclopædia Britannica. See various articles. Johnson's Universal Encyclopædia. See various articles.
- Greece, a Hand-Book for Travelers: Baedeker. England, 2nd ed., 1893.
- Old Greek Education: J. P. Mahaffy. New York, 1882.

Homer.

- Introduction to Homer: Jebb. Ginn & Co. Should be read by all students in connection with their reading of the Iliad and Odyssey.
- Autenrieth's Homeric Dictionary: Harper & Bros. A dictionary for rapid reading of Homer.

Greek Art.

- History of Greek Art: Tarbell. Macmillan Co. This book gives a brief but good account of Greek sculpture, architecture, etc.

Composition.

- Beginner's Greek Composition: Based mainly upon Xenophon's Anabasis. Book I by W. C. Collar and M. G. Daniell. Illustrated, 90c; Ginn & Co. Useful as a supplement to the Beginner's Greek Book.
- Greek Prose: Fletcher and Nicholson. \$1.00; The Copp, Clark Co.
- First Greek Writer: A. Sedgwick of Oxford. Crown 8vo, 3s 6d; Longmans, Green & Co.
- Introduction to Greek Prose Composition: With exercises. By A. Sedgwick, 5s; Longmans, Green & Co. Very valuable.

- Lectures on Greek Prose Composition: With exercises. By A. Sedgwick. 4s 6d; Longmans, Green & Co.
- Greek Prose Composition: North and Hillard. 3s 6d; Rivington's.
- Introduction to Greek Prose Composition: H. Pitman. 2s 6d; Macmillan Co.
- Easy Exercises in Greek Accidence: H. G. Underhill. 2s; Macmillan Co.
- Easy Exercises in First Greek Syntax: G. H. Nall. 2s 6d; Macmillan Co.
- Second Greek Exercise Book: W. A. Heard. 2s 6d; Macmillan Co.
- Greek Prose Phrase Book: Based on Thucydides, Xenophon, Demosthenes and Plato. By H. W. Auden. Interleaved, 3s 6d; William Blackwood & Sons.

History of Literature.

- History of Ancient Greek Literature: Gilbert Murray. Short Histories of Literature of the World Series, edited by Edmund Gosse. \$1.50; W. Heinemann, London.
- History of Greek Classical Literature: J. P. Mahaffy. 2 vols. On the poetry and on the prose). \$4.00; Harper & Bros.
- Greek Life and Thought: From the age of Alexander to the Roman conquest. J. P. Mahaffy. \$3.50; Macmillan Co.
- Some Aspects of the Greek Genius: S. H. Butcher; \$2.50; Macmillan Co. Very valuable.
- Studies of the Greek Poets: John A. Symonds. 2 vols., \$3.50; Harper & Bros.
- Greek Literature: J. B. Jevons. \$2.50; Charles Scribner's Sons.
- Growth and Influence of Classical Greek Poetry: Prof. Jebb. \$1.50; Houghton, Mifflin & Co. Very valuable.
- Attic Orators: From Antiphon to Isacos. Prof. Jebb. \$5.00; Macmillan Co.
- Classical Writers: Edited by John Richard Green. Euripides, Virgil, Tacitus, Sophocles, Livy, Demosthenes. 16mo, each, cloth, 60c, D. Appleton & Co.
- Ancient Classics for English Readers: 16mo., cloth, 50c per volume. Homer, The Iliad, The Odyssey, Herodotus, Cæsar, Plautus and Terence, Greek Anthology, Plato, Tacitus, Virgil, Horace, Æschylus, Xenophon, Cicero, Sophocles, Pliny's Letters, Euripides, Juvenal, Aristophanes, Hesiod and Theognis, Lucian, Livy, Ovid, Demosthenes, Catullus, Tibullus and Propertius, Aristotle, Thucydides, Pindar, Lucretius. Also in 9 vols., cloth, per set, \$6.75; J. B. Lippincott Co.
- Primer of Greek Literature Jebb. American Book Co. An excellent brief history of Greek literature.
- From Homer to Theocritus: Capps. Charles Scribner's Sons. This recent book gives a concise but complete survey of Greek literature of the classical period, with selections from English translations.
- A History of Ancient Greek Literature: Fowler. D. Appleton & Co., 1901. An excellent work.

Latin and Greek Philology.

- Comparative Grammar of Greek and Latin: King and Cookson. \$1.40; Clarendon Press.
- Short Manual of Comparative Philology for Classical Students: Second edition, revised. P. Giles. 14s; Macmillan Co.
- Etymology of Latin and Greek: Charles S. Halsey. \$1.12; Ginn & Co.
- Short Historical Latin Grammar: W. M. Lindsay. 6s; Clarendon Press. Very valuable.
- Short Comparative Grammar of Greek and Latin: Victor Henry. 8s; Swan, Sonnenschein & Co.
- Philological Introduction to Greek and Latin: Baur. 6s; Kegan Paul, Trench, Trubner & Co.
- Order of Words: Henri Weil. Translated by Super, \$1.12; Ginn & Co. Very valuable.
- Restored Pronunciation of Greek and Latin: With tables and practical explanations. E. V. Arnoldi, M. A., and R. S. Conway, Litt, D.D., demy 8vo. Second edition, paper covers, 1s; Cambridge University Press.

Antiquities, etc.

- Dictionary of Classical Antiquities: Mythology, Religion, Literature and Art. Seyffert. \$2.25; Macmillan Co.
- Dictionary of Greek and Roman Antiquities: By various writers. Edited by William Smith, LL.D., William Wayte and G. E. Marindin. Third edition, greatly enlarged. Illustrated with nearly 1,000 engravings. 2 vols. Thick 8vo (2,000 pages), \$14.00 net, half calf, gilt top, \$18.00 net; Little, Brown & Co.
- Harper's Dictionary of Classical Literature and Antiquities: Edited by Harry Thurston Peck, M. A., Ph. D., Royal octavo, with over 1,500 illustrations. One vol., cloth, \$6.00; two vols., cloth, \$7.00; one vol., half leather, \$8.00; two vols., half leather, \$10.00; American Book Co. Not an alternative to the preceding. Both are indispensable.
- Greek and Roman Mythology: Harrington and Tolmon. Students' Series. \$1.00; Sanborn & Co. A connected account with literary references.
- Dictionary of Greek and Roman Mythology: Dr. William Smith. Revised by various writers. 2 vols., \$12.00, half calf, \$16.00; Little, Brown & Co.
- Mythology and Monuments of Ancient Athens: Harrison and Verrall. \$4.00; Macmillan Co.
- Introduction to Greek Sculpture: Upcott. \$1.00; Clarendon Press.
- Handbook of Greek Sculpture: E. A. Gardner. \$2.50; Macmillan Co.
- History of Greek Art: F. B. Tarbell. \$1.75, Macmillan Co.; George N. Morang & Co.
- Primer of Greek Antiquities: Dr. J. P. Mahaffy. 35c; Macmillan Co.
- Social Life in Greece: From Homer to Menander. Dr. J. P. Mahaffy. \$2.50; Macmillan Co.
- Roman Public Life: A. H. J. Greenidge. \$2.50; Macmillan Co.

- Life of Greeks and Romans: Guhl and Koner. \$2.00; D. Appleton & Co. Very valuable.
- Manual of Mythology: Collignon. \$3.00; J. B. Lippincott & Co.
- Manual of Greek Antiquities: Gardner and Jevons. \$4.00; Charles Scribner's Sons. Very valuable.
- Roman Life in the Days of Cicero: A. J. Church. 5s; Seeley & Co. Very valuable.
- Day in Ancient Rome: Shumway. 75c; D. C. Heath & Co.
- Rambles and Studies in Greece: Dr. J. P. Mahaffy. \$3.00; Macmillan Co.
- Gallus; or Roman Scenes in the Time of Augustus: Becker. Translated by the Rev. F. Metcalfe, B.D. With notes and excursuses, illustrated, crown 8vo, 3s 6d; Longmans, Green & Co.
- Charicles; or Illustrations of the Private Life of the Ancient Greeks: With notes and excursuses. Illustrated, crown 8vo, 3s 6d; Longmans, Green & Co.
- Companion to School Classics: Dr. James Gow. Illustrated, \$1.75; Macmillan Co. A concise, reliable work of reference. Very valuable.
- Classical Myths in English Literature: Based chiefly on Bulfinch's Age of Fable. C. M. Gayley. \$1.50; Ginn & Co. A good manual of mythology.
- Ilios, the City and Country of the Trojans: Including an autobiography of the author. Henry Schliemann. With a preface, appendices and notes by Prof. Rudolf Virchow, Max Müller, etc., xvi, 800 pages, 1,800 illustrations, maps, plans; Royal 8vo, \$7.50; half Morocco, \$10.00; Harper & Bros.
- Troja: Results of the latest researches and discoveries on the site of Homer's Troy, and in the heroic tumuli and other sites. Henry Schliemann. Preface by Prof. A. H. Sayce. xl, 434 pages, 150 wood cuts, maps, 8vo, \$5.00, half Morocco, \$7.00; Harper & Bros.
- Dr. Schliemann's Excavations at Troy, Tiryns, Mycenæ, Orchomenos, Ithaca, Presented in the Light of Recent Knowledge: Dr. Carl Schuchhardt. Translated by Eugenie Sellers, 8vo, 18s net; Macmillan Co.
- Remains of Ancient Rome: Middleton. 2 vols., \$7.00; Macmillan Co.
- Mycenæan Age: Tsountas and Manatt. \$6.00; Houghton, Mifflin & Co.
- Ancient Rome in the Light of Recent Discoveries: Rodolfo Lanciani. With 36 full-page plates (including several heliotypes) and 64 text illustrations, maps and plans, with slip cover in Italian style, 8vo, gilt top, \$6.00, Houghton, Mifflin & Co.; 24s, Macmillan Co. Represents largely the pre-Christianized Rome in its historical, social, religious and other phases.
- Pagan and Christian Rome: Lanciani. With 26 full-page illustrations, including plans, facsimilies, etc. With slip-cover in Italian style, 8vo, gilt top, \$6.00, Houghton, Mifflin & Co.; 24s, Macmillan Co. Sets forth principally discoveries relating to the period of transition into Christianity under the Cæsars.
- Walks in the Country of Virgil and Horace: Gaston Boissier. \$2.00; G. P. Putnam's Sons.
- Ave Roma Immortalis: Marion Crawford. 2 vols., \$6.00; Macmillan Co.

Ruins and Excavations of Ancient Rome: Lanciani. \$4.00; Houghton, Mifflin & Co.

General.

Guide to the Choice of Classical Books: Prof. J. B. Mayor. 4s 6d; George Bell & Sons.

List of Books Recommended for a High School Classical Library: By a committee of the Michigan Schoolmasters' Club. Edited by C. L. Maeder. Paper, 10c; Macmillan Co. This list, published in 1895, is a very complete one. The report of the committee may be found in the School Review for June of that year.

XV. LATIN. (1)

Dictionaries, etc.

Harper's Latin Dictionary: C. T. Lewis and C. Short. Harper & Bros, 1891.

Latin-English and English-Latin Dictionary: J. T. White.

Companion to School Classics: J. A. Gow. 3d edition; Macmillan Co., 1893.

Illustrations of School Classics: G. F. Hill. Macmillan Co., 1903.

Harper's Dictionary of Classical Literature and Antiquities: H. T. Peck. Harper & Bros., 1896.

Dictionary of Greek and Roman Antiquity: W. Smith. 2 vols.; Little, Brown & Co., 1890.

Dictionary of Greek and Roman Biography and Mythology: W. Smith. 3 vols.; Little, Brown & Co., 1872.

Dictionary of Greek and Roman Geography: W. Smith. 2 vols.; Little, Brown & Co., 1892.

Atlas of Classical Antiquities: T. Schreiber. Macmillan Co.

Morphology and Syntax.

Manual of Philology: Giles.

Latin Language: W. M. Lindsay. Macmillan Co., 1894.

Grammar of the Latin Language: H. J. Roby. 2 vols.; Macmillan Co.

The Hale-Buck Latin Grammar: W. G. Hale and C. D. Buck. Ginn & Co., 1903. \$1.00.

Latin Grammar: B. L. Gildersleeve. Revised by Lodge, 3rd edition, 1894; University Publishing Co.

Latin Grammar: J. H. Allen and J. B. Greenough. Ginn & Co., 1895.

Latin Grammar: Bennett. Allyn & Bacon.

Latin Grammar: A. Harkness. American Book Co.

Roman Pronunciation of Latin: F. E. Lord. Ginn & Co.

Private Life.

The Private Life of the Romans: H. W. Johnson. 1903; Scott, Foresman & Co., Chicago.

(1) For an essential section see addendum.

- Gallus, or Roman Scenes in the Time of Augustus: W. A. Becker. 1888; Longmans, Green & Co.
- Pompeii, Its Life and Art: A. Mau. Translated by Kelsey. 1899; Macmillan Co.
- Life of the Greeks and Romans Described from Antique Monuments: E. Guhl and W. Koner. D. Appleton & Co.
- Roman Antiquities: A. S. Wilkins.
- Private Life of the Romans: H. W. Preston and L. Dodge. 1893; Sanborn.
- Society in Rome Under the Cæsars: W. R. Inge.

Mythology and Religion.

(For Mythology see Department of Greek Religion.)

- Roman Festivals: Warde Fowler.
- Religion und Cultus der Römer: Wissowa. Munich, 1902.
- Classic Myths in English Literature: C. M. Gayley.

Geography.

- Atlas Antiquus: Kiepert. Sanborn, Boston.
- Classical Geography: H. F. Tozer. (Literature Primer Series); American Book Co.

Archæology.

- Ruins and Excavations of Ancient Rome: Lanciani. Houghton, Mifflin & Co.
- Remains of Ancient Rome: Middleton. London, 1892.
- Text-book of the History of Sculpture: A. Marquand and A. L. Frothingham. 1896; Longmans, Green & Co.
- Roman Art: Wickhoff. Macmillan Co.
- Text-book of the History of Architecture: A. D. F. Hamlin. 1896; Longmans, Green & Co.

History of Latin Literature.

- History of Roman Literature: J. W. Mackail.
- History of Roman Literature: W. S. Teuffel. Translated by Warr. 2 vols., 1891; Macmillan Co.
- History of Roman Literature: Cruttwell.
- Roman Poets of the Augustan Age, Virgil: W. Y. Sellar. Second edition, 1883; Macmillan Co.
- Ancient Lives of Virgil, with an essay on the Poems of Virgil in Connection with His Life and Times: H. Nettleship. 1879; Macmillan Co.
- History of Latin Literature: Simcox. 2 vols.; Harper & Bros.

Roman History and Institutions.

(See also the Department of History.)

- Roman Political Institutions: Abbot. 1901; Ginn & Co.
- Roman Public Life: Greenidge. 1901; Macmillan Co.

A History of Rome: Botsford. 1901; Macmillan Co.
 History of Rome: Mommsen. 5 vols.; Charles Scribner's Sons.
 Outlines of Roman History: Pelham. New York, 1893.
 Decline of the Roman Republic: Long. 5 vols.; George Bell & Sons.
 History of Rome: How and Leigh. Longmans, Green & Co.
 History of the Romans Under the Empire: Merivale. D. Appleton & Co.
 Student's Roman Empire: Bury. 27 B. C.—170 A. D.; Harper & Bros., 1903.
 Provinces of the Roman Empire: Mommsen. Translation by W. P. Dickson, 1886; Charles Scribner's Sons.

ROMANCE LANGUAGES.—XVI. FRENCH.

Grammars.

Whitney's: The oldest and best of French Grammars, based on scientific principles.
 Bevier's: A recent work, in every way a worthy successor to Whitney.
 Fraser and Squair's: A combination Grammar and Reader, very satisfactory for beginners.
 A First Book in French: Downer. D. Appleton & Co., 1902.

Phonetics.

Matzke's Primer of French Pronunciation: A simple and practical work for laying the foundation of a correct pronunciation.
 Koschwitz's Parlers Parisiens: Specimens of French pronunciation by famous Parisians. A good book of reference for teachers.

Histories of Literature.

Kaskier and Atkins (in English): Excellent.
 Duval's (in French).

* Dictionaries.

Elwell's.

Heath's.

Gasc's.

XVII. SPANISH.

Grammars.

Ramsey's Text-book of Modern Spanish: The best Spanish Grammar.
 Short edition of preceding, practically as good.
 Edgrere's: A small book in fifteen lessons. Satisfactory for beginners.

Readers.

Ramsey's: Well adapted for beginners.
 A First Spanish Book and Reader: Giese. D. Appleton & Co., 1902.
 Matzke's: Too difficult for beginners, but suitable for a second reader.
 Ford's Anthology: Selections from Spanish literature beginning with the Fourteenth Century, for advanced classes.

Histories of Literature.

Clarke's: Short and practical.

Fichuir's: Oldest and most famous of works in English.

XVIII. ITALIAN.

Grammars.

Grandgent's.

Readers.

Boneu's.

Dictionary.

Millhouse.

XIX. GERMAN.

Texts and Reference Books.

German Grammar: Calvin Thomas. \$1.50; Henry Holt & Co.

Life and Works of Schiller: Calvin Thomas.

German Dictionary: Whitney. \$1.50; Henry Holt & Co. Cheap and good.

Studies in German Literature: Bayard Taylor. \$2.00; G. P. Putnam's Sons.

Hours with German Classics: Frederic H. Hedge. \$2.00; Little, Brown & Co.

Poems from Heine: White. 75c; D. C. Heath & Co. Simple poems well arranged.

Poems from Uhland: W. T. Hewett. \$1.10; Macmillan Co. Good ballads.

Balladenbuch: Leipsic, \$2.00. Illustrations fine.

Commercial German: Kutner. American Book Co., 1903. Very excellent.

A German Reader: Jones. D. Appleton & Co., 1901.

History of Germany: Lewis. Harper & Bros. Accurate.

The Three Germanys: Fay. 2 vols., \$6.00; Walker. Pleasant reading.

Life of Goethe: Lewes. \$1.50; Houghton, Mifflin & Co. Interesting to all.

History of Germany: Henderson. 2 vols., \$5.00; Macmillan Co.

Studien und Plaudereien: Sauveur. Series I and II, \$1.75 each; Henry Holt & Co. Easy reading in German.

Grimm, Maerchen: 65c; D. C. Heath & Co. Elementary.

Andersen, Maerchen: 70c; D. C. Heath & Co. Elementary.

Schiller Gallerie: From drawings illustrating works of Schiller.

Goethe Gallerie: From drawings illustrating works of Goethe.

Frau Sorge: Sudermann: \$1.00; Henry Holt & Co. One of the best recent stories.

German Dictionary: Muret-Sauders. \$4.00; Stechert. Very recent.

Eine Frage: George Ebers. 50c; Henry Holt & Co. Story.

Life of Frederic the Great: \$1.50; G. P. Putnam's Sons. (Heroes of the Nations.

History of Literature.

- Outlines of German Literature: Gostwick and Harrison. New York, \$2.00; Henry Holt & Co.
- History of German Literature: Kuno Francke. New York, \$2.50; Henry Holt & Co.
- History of German Literature: W. Scherer. Edited by Max Müller. Translated by Mrs. F. C. Conybeare. 2 vols., \$4.50; Charles Scribner's Sons.
- Geschichte der Deutschen National-Literatur: H. Kluge. Mk. 25. Bondi, Altenberg, This is the best short history.
- Deutsche Literaturgeschichte: R. König. 2 vols., Mk. 20; Velhagen und Klasing, Leipzig. A good, popular work, with numerous illustrations, portraits, etc. Includes the literature up to the present day.
- Geschichte der Deutschen Literatur von Leibnitz bis auf unsere Zeit: Julian Schmidt. 5 vols., Mk. 42, cloth; W. Hertz, Berlin. This is the standard work for the period it covers. Ends with year 1866.
- Literaturgeschichte des 18. Jahrhunderts: H. Hettner. 3 vols. in 6, Mk. 55; Vieweg, Braunschweig. A most excellent work. Vol. III treats of German literature, vols. I and II of English and French respectively.
- Hauptstroemungen der Literatur des 19. Jahrhunderts: G. Brandes. 5 vols., Mk. 25; Barsdorf, Leipzig. A brilliant and inspiring work, dealing with general European literature in the Nineteenth Century. An English edition is now (1901) being published by Macmillan Co. The titles of the six volumes are: "The Emigrant Literature," "The Romantic School in Germany," "The Reaction in France," "Naturalism in England," "The Romantic School in France," "Young Germany."
- Die Deutsche Literatur des 19. Jahrhunderts: R. M. Meyer. Mk. 12.50; Bondi, Berlin, 1900. Excellent reference work. 1 vol. of 966 pages. Brings the history right up to the present day.
- Die geistigen und sozialen Stroemungen des 19. Jahrhunderts: Th. Ziegler. Mk. 12.50; Bondi, Berlin. Good account of intellectual and social development of Germany in Nineteenth Century, including the literature. 1 vol. of 714 pages.
- Geschichte des Deutschen Volkes: Th. Lindner. Mk. 12; Cotta, Stuttgart. Excellent recent short political history, with brief reviews of literary and social development.
- Short History of German Literature: Hosmer. \$2.00; Charles Scribner's Sons.

XX. COMMERCIAL.

Bookkeeping and Commercial Law.

- The Canadian Accountant: Edited and published by Robinson and Johnson. \$2.00. A good work on elementary and intermediate bookkeeping, banking, office practice, business papers and correspondence.

- Goodwin's Improved Bookkeeping and Business Manual: Edited and published by J. H. Goodwin. \$3.00 Treats of bookkeeping under a large number of separate headings, or in detached articles; these articles are concise, clear and instructive. It is elementary and intermediate in character.
- Manual for Accountants: Edited and published by W. C. Eddis. \$3.00. In the form of questions and answers and final bookkeeping of the Chartered Accountants' examinations of 1897 and 1898.
- Bookkeeping for Accountant Students: Lawrence R. Dicksee. \$3.00; Gee & Co. Elementary and intermediate bookkeeping with examples in English currency.
- Partnership Accounts: Percy Childs. \$1.00; Gee & Co. An intermediate and advanced work with problems in partnership worked out.
- Bookkeeping and Other Papers: Gerard Van de Linde. \$2.75; Blades, East & Blades. An advanced work.
- Executorship Accounts: Whitney. \$1.75; Gee & Co. A series of lectures on executorship, together with a complete set of accounts.
- Riker's Forty Rules for Locating Errors in Trial Balances: Edited and published by H. E. Riker. 25c.
- Keister's Corporation Accounting and Auditing: D. A. Keister. \$4.00; The Burrows Bros. Co. This is an advanced work—a practical treatise on higher accounting.
- Soule's New Science and Practice of Accounts: Edited and published by George Soule & Sons. \$4.00. An advanced work on joint stock company bookkeeping and expert accounting.
- Auditing: Lawrence R. Dicksee. \$6.00; Gee & Co. An advanced work on auditing and all that pertains thereto.
- Laws of Business: Edited and published by C. A. Fleming. \$1.50. It contains the forms of business and legal documents, and leading principles of law as it relates to business.
- Commercial Law and Business Forms: Edited and published by C. A. Fleming. \$1.00. An abridged edition of Laws of Business, suitable for class work.
- Business Educator's Commercial Law: T. H. Luscombe. \$2.00; The Business Educator's Publishing Co. A compilation of the general principles applicable to mercantile law.
- Promissory Notes, Drafts and Cheques: J. W. Johnson. 75c; Robinson & Johnson. Conveys in a clear, concise way a knowledge of notes, drafts, foreign bills of exchange, and cheques; and also deals with bookkeeping in connection therewith.
- Accountants' Compendium: Sidney Stanley Dawson. \$5.00; Gee & Co. A lexicon containing a digest of the subjects, phrases, terms and words which meet the business man and the accountant.
- Accountants' Manual: Vols. I-VI at \$4.00 per vol.; Gee & Co. Contains the questions and answers of the English Chartered Accountants' Institute examination. Vol. I contains the questions and answers from December,

1884, to June, 1887. The other volumes apply respectively to the following dates: December, 1887, to June, 1890, 1890 to 1892, 1892 to 1894, 1894 to 1896, 1896 to 1898. Succeeding volumes are issued every other year. These volumes contain a valuable fund of information relative to the practice and laws of accountancy.

Shorthand.

Phonographic Teacher: 20c.

Manual of Phonography: 50c.

Phonographic Reporter: 60c.

Pitman's Shorthand Instructor: (Manual and Reporter). Cloth, \$1.50.

Phonographic Phrase Book: 35c. Contains 2,000 phrases and 43 pages of exercises.

Phonographic Dictionary: Cloth, \$1.50. Contains 55,000 words and 5,000 proper names.

Abridged Shorthand Dictionary: 85c. Contains 2,200 words.

Exercises in Phonography: 5c. Exercises in longhand suitable for class dictation in connection with the "Teacher."

Shorthand Gradus: 6c. Exercises in longhand suitable for class dictation in connection with the "Manual."

Self Culture: 35c. Printed in corresponding style without key.

Business Correspondence in Shorthand, No. 1: 30c. Business letters in reporting style with key.

Business Correspondence in Shorthand, No. 2: 30c. Business letters in reporting style with key.

Typewriting.

Barnes' Complete Typewriting Instructor, Special Typewriting Instructor and Abridged Typewriting Instructor: Arthur J. Barnes. \$1.50, \$1.10, 50c, respectively.

The last two of the above-named instructors are abridgments of the first. All are adapted to touch typewriting, but may be used otherwise. The first two are put up in different editions—Remington edition, Smith-Premier edition, etc., each edition differing only in having a chapter on the mechanism of its own machine. The exercises in all may be used with any standard keyboard machine. Either of the last two is suitable for class work. They contain 200 pages, 100 pages, and 56 pages, respectively.

Van Sant System of Touch Typewriting: A. C. Van Sant. 50c; Powers & Lyons. Consists of 15 cards, about 7 in. by 11 in., of instructions, lessons and exercises.

Complete Touch Typewriting Instructor: F. W. Mosher. \$1.00; Powers & Lyons. Contains 86 pages of instructions, lessons and exercises. It opens from the bottom upward like a reporter's notebook.

Drawing and Art.

- Elementary Drawing Simplified: D. R. Augsburg. 75c; Educational Publishing Co. A teacher's handbook for primary drawing. It treats of the sphere, the cube, the cylinder and modifications and applications of these.
- Drawing Simplified: D. R. Augsburg. \$1.00; Educational Publishing Co. Divided into: I. The cube and its applications. II. The cylinder and its applications. III. The triangular prism and its applications. VI. Light, shade, shadow and reflection.
- Prang Elementary Course in Art Instruction: Prang Educational Co. Eight teacher's manuals at 75c each. This comprises an eight years' course—from primary to more advanced work. It covers the three general subject divisions—representation, decoration and construction, and in connection with these, treats of light-and-shade, light-and-dark, and color. It develops these divisions along educational, industrial, and artistic lines.
- Model and Object Manual: Langdon S. Thompson. 35c; D. C. Heath & Co. Treats of the sphere, the cylinder, the cone, and modifications of these; also of straight lines, plain surfaces and rectilinear solids.
- Lessons in Pencil Sketching from Nature: Bartholomew. Three manuals with 12 plates each, 75c each; Prang Educational Co. Primary and advanced work.
- Light and Shade: Cross. \$1.00; Ginn & Co. A primary and advanced work.
- Color Study: Cross. 60c; Ginn & Co. Primary and advanced work.
- Course in Water Color. 75c; Prang Educational Co. Covering the work of eight years of school grades.
- Suggestions for Instruction in Color. \$1.00; Prang Educational Co. Primary and advanced work.
- Æsthetic Manual: Langdon S. Thompson. 60c; D. C. Heath & Co. A treatise on decorative design.
- Mechanical Manual: Langdon S. Thompson. 75c; D. C. Heath & Co. A treatise on practical plane geometry, projection and perspective (parallel, angular and oblique.).
- School of Art Perspective: Andrews. 3s 6d; George Gill & Sons. On parallel and angular perspective.
- Third Grade Perspective. Part I: H. J. Dennis. 7s. 6d.; Chapman & Hall. On angular and oblique perspective.
- Complete Perspective Course: Humphrey Spanton. \$1.25; Macmillan Co. A work on elementary and advanced perspective, together with the projection of shadows and reflections.
- New School of Art Geometry: 1s; George Gill & Sons. Contains solutions for 458 problems in practical plane geometry, projection and graphic arithmetic.
- Machine Drawing: Gardner C. Anthony. \$1.50; D. C. Heath & Co. Contains the principles of machine drawing, sketching, figuring, etc., with numerous practical examples.

Mechanical Drawing, Self Taught: 8vo, 14 plates, 303 pages, 330 illustrations, \$4.00; Munn & Co. The author begins with the drawing board and the use of instruments; then comes a system of studies, lines and curves; shadow lines and line shading are successively given. These are followed by the arrangement of various views, the drawing of bolts, nuts, screws, threads and spirals, followed in turn by projections, the drawing of gear wheels and plotting of mechanical motion, and followed by numerous special examples in general machine and engine work. The work is splendidly illustrated.

Decorative Design: An elementary text-book of principles and practice: Frank G. Jackson, Lecturer on Principles of Ornament and Teacher of Technical Art Processes in the Birmingham School of Art. Illustrated, 3d ed., large crown 8vo, 7s 6d. Assists young students in their early decorative attempts by showing them the constructive origin of ornamentation, and places before them guiding principles and ordinary methods.

Theory and Practice of Design: An advanced text-book on decorative art, being a sequel to the author's "Lessons on Decorative Design." Frank G. Jackson. Illustrated, large crown 8vo, 9s. A continuation of the book on decorative design, and is intended to help advanced students.

A Short History of Architecture: By the late A. L. Tuckerman. 8vo, 167 pages, 26 plates, \$1.50; Munn & Co.

History of Architecture in All Countries: J. Fergusson. 2 large 8vo roan vols., 1,015 pages, \$7.50; Munn & Co. A work indispensable to all architectural students.

Architectural Drawing: Practical lessons in: W. B. Tuthill. Oblong, 4to, 31 illustrations, 33 plates, 7th ed., \$2.50; Munn & Co. The illustrations in the text show how to make the working drawings and write the specifications for buildings. The work shows not only the construction, but also the manner of representation. A very valuable work for all students of architectural drawing.

Building, Construction and Superintendence: F. E. Kidder. 2 vols., \$4.00 each; Wm. T. Comstock, 23 Warren St. Part I is on masons' work. Part II is on carpenters' work. Both are well illustrated, and describe minutely materials to be used and methods of construction.

Freehand Lettering: Frank T. Daniels. 75c; D. C. Heath & Co. Contains eleven chapters: Preliminary exercises, forms of Gothic letters, spacing of letters, construction of titles, lower case letters, slant letters, inking, Roman letters and figures, Old English and German text, miscellaneous styles, ornamentation.

Alphabets, Plain and Fancy: F. S. Copely. Oblong, 4to., 47 plates, \$2.00; Munn & Co. Treats of Egyptian, block, Roman, italic, Old English, German text, Tuscan, pearl, velvet, text hand, Italian, engrossing, Gothic, ancient Greek, Hebrew, ciphers, monograms, flourishes, titles, compass points, borders, etc. A splendid work.

Outlines of History of Art: Wilhelm Luebke. \$4.50; Dodd, Mead & Co.

Art for Art's Sake: John C. Vandyke. Seven university lectures on the technical beauties of painting. \$1.50; Charles Scribner's Sons.

How to Judge of a Picture: John C. Vandyke. Familiar talks in the gallery with uncritical lovers of art. 75c; Eaton & Mains, New York.

Riverside Art Series: Paper, 35c; cloth, 50c; Houghton, Mifflin & Co. Ten vols. (100 pages each), published to January. Each has 16 full-page reproductions of characteristic works of ancient painters—Raphael, Titian, etc.—with explanatory and introductory text. Will stimulate the production of good taste in our schools.

XXI. PHYSICAL EDUCATION.

Book of College Sports: By Walter Camp. Illustrated, \$1.75; Century Co. Describes baseball, football, track athletics and rowing. An excellent authority on sports.

School Gymnastics: By Jessie H. Bancroft. Free hand. School gymnastics, with light apparatus; D. C. Heath & Co., 1901. Miss Bancroft has done excellent work in these volumes. Neither the Swedish nor the German systems has been slavishly adopted, but the characteristics of these systems suitable for our American schools have been utilized. The publishers have issued the books in perfect form.

All England Series of Handbooks of Athletic Games: 32 vols., 1s each; Geo. Bell & Sons. The series deals with the following topics: Baseball, boxing, broadsword and single-stick, cricket, dumb bells, fencing, football, golf, gymnastics, tennis, Indian clubs, wrestling, sailing, etc.

Physical Exercise in Public Schools: An artistic system of exercises, including the Delsartean principles of execution and expression. By R. Anna Morris, supervisor of physical culture, Cleveland public schools. Illustrated, \$1.00; American Book Co.

How to Get Strong and How to Remain So: By William Blaikie. New edition, \$1.00; Harper & Bros. A system of exercises for the development of all classes of muscles, with advice for daily exercise.

Elements of Physical Education: A Teachers' Manual. By D. Lennox, M. D., medical director of Dundee Public Gymnasium and instructor to the University of St. Andrew's, 4s; William Blackwood & Sons. Part I contains the essentials of what is known with regard to the physiology and psychology of muscular exercises. In Part II illustrations are given of the principles with drills arranged in a consecutive and progressive series. Part III gives original musical accompaniments to the drill by H. E. Losby. This is an excellent work for the teacher.

Artistic Work: By H. S. Anderson of Yale University Gymnasium. Illustrated, 75c.

Muscular Exercise for Health: Lydia J. Mewcomb. Illustrated, 75c; Edgar S. Werner Pub. & Supply Co. Concise and practical drills by Genevieve Stebbins, containing, 1. Eastern Temple Drill. 2. Energizing Dramatic

- Drill. 3. Munich Fan Drill. 4. An Æsthetic Fan Drill, 30c; Edgar S. Werner Pub. & Supply Co.
- Scarf Fantastics: A twenty-minute æsthetic drill. By Elizabeth Middleton. 25c; Edgar S. Werner Pub. & Supply Co.
- Society Gymnastics and Voice Culture: By Genevieve Stebbins. \$1.00; Edgar S. Werner Pub. & Supply Co. Especially for class use.
- System of Physical Training: By Genevieve Stebbins. \$1.00; Edgar S. Werner Pub. & Supply Co.
- Gesture and Pantomimic Action: By Florence Adams. \$2.50; Edgar S. Werner Pub. & Supply Co.
- Wordless Poems: By Mary T. Magill. \$1.25; Edgar S. Werner Pub. & Supply Co.
- Girl's Physical Training: Being a series of healthy and artistic movements to music. By Alice R. James. With numerous illustrations, \$1.75; Macmillan Co.
- Manual of Physical Measurement for Young Men: Adopted by the American Association for the Advancement of Physical Education. By Dr. Edward Hitchcock and Dr. H. H. Seelye of Amherst College. Paper, 30c; D. C. Heath & Co. These directions, while prepared especially for Amherst students, will be of value to any well equipped gymnasium, and will be of special interest to instructors.
- How to Swim: A practical treatise upon the art of navigation, together with the best methods of saving persons imperiled in the water and of resuscitating those apparently drowned. With 31 illustrations. By Captain Davis, inspector of the U. S. Volunteer Life-saving Corps. \$1.00; G. P. Putnam's Sons.
- Theory of Physical Education: By Thomas Cheslerton. 2s 6d; Gale & Polden, London.
- Strength and How to Obtain It: Sandow. Gale & Polden, London.
- Free Gymnastics: By Major S. J. Noakes. 1s 6d; Gale & Polden, London.
- Modern Gymnastic Exercises: Parts I and II. A. Alexander. 7s 6d; Geo. Phillip & Son, 32 Fleet St., London, Eng.
- Physical Education: By Maclaren. 8s; Clarendon Press.
- Art of Breathing: By Surgeon Captain Hoper Dixon, A. M. S. 2s 6d; Gale & Polden, London.
- Calisthenic Training and Musical Drill: By Cruden. 50c; Dick & Fitzgerald, New York.
- Book of Drills and Marches for Young People: By Wilson. 50c; Dick & Fitzgerald, New York.
- Art of Gymnastics: By Dick. \$1.00; Dick & Fitzgerald, New York.
- Dumb Bell and Indian Club Exercises: By Dick. 25c; Dick & Fitzgerald, New York.
- Calisthenics and Musical Drill for Children: By Alexander. 25c; Dick & Fitzgerald, New York.
- American Physical Education Review, New York.

XXII. DOMESTIC SCIENCE AND ART.

Domestic Science.

Elements of the Theory of Cooking: Williams and Fisher. \$1.00; Macmillan Co.

Boston School Kitchen Text-Book: Lincoln. \$1.00; Little, Brown & Co.

Chemistry and Nutritive Value of Food.

United States Bulletins: Nos. 13, 17, 23, 28, 34, 35, 43, 48, 50, 45, 67, 63, 74, 85, 93, 112, 121, 128. These can be had only through the courtesy of the U.

S. Agricultural Department. Address Mr. A. C. True, Washington, D. C.
Chemistry and Economy of Food: Atwater.

Food: Church. \$1.00; Chapman & Hall.

Chemistry of Cooking: Williams. \$1.25; D. Appleton & Co.

Food from the Dietetic Standpoint.

Dietetic Value of Bread: Goodfellow.

Practical Dietetics: Gilman Thompson. \$5.00; D. Appleton & Co.

Subjects Connected with Domestic Science.

Food Materials and Their Adulteration: Richards. \$1.00; Home Science Pub. Co.

Handbook of Sanitary Information: Tracy. 50c; D. Appleton & Co.

Dust and Its Dangers: Story of the bacteria, drinking water and ice supplies. Prudden. 60c each; G. P. Putnam's Sons.

Germ Life: Conn. 40c; D. Appleton & Co.

Story of the Living Machine: Conn. 40c; D. Appleton & Co.

Chemistry in Daily Life: Lasser Cohn. 40c; D. Appleton & Co.

Text-Book of Anatomy and Physiology: Kimber. \$3.00; Macmillan Co.

How to Feed Children: Hogan. \$1.00; J. B. Lippincott & Co.

Household Management.

Home Economics: Parloa. 20c; Century Co.

Cost of Living: Richards. \$1.00; John Wylie & Co.

Cost of Food: Richards. \$1.00; John Wylie & Co.

Making of the Home: Barnett. 50c; Cassell & Co.

Expert Waitress: By Annie F. Springstead. 75c; Harper & Bros.

Cook Books, Containing Also the Theory.

Young Housekeeper: Parloa. \$1.20; Estes & Lauriat, Boston.

Mrs. Seeley's Cook Book: Cloth, \$2.00; half leather, \$3.00; Macmillan Co.

Boston Cook Book: Mrs. Lincoln. \$2.00; Roberts Bros., Boston.

Principles of Practical Cookery: Mann. 40c; Longmans, Green & Co.

Cook Books, Containing Recipes Only.

Mrs. Rorer's Cook Book: At various prices.

Boston Cooking School Cook Book: F. W. Farmer. \$1.50.

How to Cook for the Sick: Sachse. \$1.00; J. B. Lippincott & Co.
Cold Dishes for Hot Weather: Ysaguirre and La Marcia. \$1.00; Harper & Bros.

Textiles.

Textiles: William Morris. \$2.50; Charles Scribner's Sons.
Textile Fabrics: Rock. 2s 6d; Chapman & Hall.
Design in Textile Fabrics: 4s 6d; Cassell & Co.
Cotton Spinning: Marsden. 6s 6d; George Bell & Sons.
Cotton Fibre: Hugh Monie. 15c; Haywood, Manchester.
Pamphlet on Cotton: Willimantic Linen Co., Willimantic, Conn.
Theory and Practice of Jute Spinning and Weaving: Leggatt. 10s 6d.
Silk Goods of America: Wychoff. \$1.00; American Silk Association, N. Y.
Early History of English Woolen Industry: Ashley. 75c; American Economic Association.
Woolen and Worsted Manufacture: Beaumont. 7s 6d; George Bell & Sons.
Wool-Producing Animals: 7s 6d; Chapman & Hall.
Dyeing of Textile Fabrics: Hummel. 5s; Cassell & Co.

Fibres.

Descriptive Catalogue of Useful Fibre Plants of the World: U. S. Department of Agriculture; Department of Fibre Investigation, Washington, D. C.
Cotton Plant: U. S. Agricultural Department, Bulletin 33.
Farmers' Bulletin No. 27: U. S. Agricultural Department.

Miscellaneous.

History of Inventions, Discoveries, and Origins: Beckman. 3s 6d; George Bell & Sons.
Origin of Inventions: By Otis T. Mason. Charles Scribner's Sons.
Stories of Invention: C. E. Hale. \$1.00; Roberts.
Systematic Cutting Out: E. Carlisle. 2s; Hatchard, London.
School Needlework: Teachers' Edition. O. C. Hapgood. 75c; Ginn & Co.
Sewing Course: Without models. Woolman. \$3.50; Teachers' College, New York.
Color: M. E. Chevrue. 3s 6d; George Routledge & Sons.
Industrial Biographies: Smiles.

XXIII. MANUAL TRAINING.

Most of the following works deal with the subject from the point of view of general culture and broad educational ends, and are well worth every teacher's attention.

Many practical manuals have been published. A bibliography of the best of these has been issued by the Eastern Teachers' Manual Training Association, Secretary Clifford B. Connolly, Page and Manhattan streets, Allegheny, Pennsylvania.

For the details of good courses of study, see the prospectuses of the leading Manual Training High Schools of the United States, especially that of the Boston Mechanic Arts' High School, which gives the manual training exercises in full, and the Manual Training High School, Providence, which provides a more comprehensive technical course.

School and Society: By Prof. John Dewey. \$1.00, University of Chicago Press; \$1.00, McClure, Phillips & Co.

Growth of the Brain: By Donaldson. \$1.50; Charles Scribner's Sons.

Mind and Hand: By Charles H. Ham. \$1.25; American Book Co.

Talks on Pedagogics and Talks on Teaching: By Col. Parker. E. L. Kellogg & Co.

Technical Art Education in Public Schools: Felix Adler.

Constructive Work in the Elementary Schools: G. E. English.

Modifications of Secondary School Courses Most Demanded by the Conditions of To-day: C. Y. Keyes.

Function of Manual Training in the Elementary School: Richard Waterman.

The preceding four books are published by the National Educational Association.

Educational Value of Manual Training in Public Schools: Felix Adler. New England Conference of Educational Workers, J. O. Norris, secretary, Melrose, Mass.

Theory of Educational Sloyd: By Otto Solomon. \$1.25; Silver, Burdette & Co.

Sloyd, in the Service of the School: Educational Monographs. Vol. I, No. 6. New York.

Industrial Instruction: A Pedagogic and Social Necessity. By Robert Seidel. \$1.25; D. C. Heath & Co.

Manual Training School; Its Aims, Methods and Results: By C. M. Woodward, director of the Manual Training School, Washington University, St. Louis. 62c, D. C. Heath & Co.; 3s 6d, Walter Scott. This work is the traditional classic in the United States, but is somewhat out of date as to practice.

New Education: By Richard Wake. 10s, or in three parts, 3s 6d each; Chapman & Hall. An excellent work on method. Contains descriptive lessons on wood, tools and bench work. Very useful to the teacher.

Education in Its Relations to Manual Industry: By MacArthur. D. Appleton & Co. An excellent work.

New Methods in Education: By Tadd. Orange Judd & Co.

XXIV. EDUCATION AND PEDAGOGY.

Great Educators' Series; Nicholas Murray Butler, editor. 11 vols. already issued; others in preparation. \$1.00 per vol.; Charles Scribner's Sons. Biographies of Aristotle, Horace Mann, etc., with accounts of great educational movements with which these were associated.

- International Educational Series: Dr. W. T. Harris, editor. About 50 vols. already issued; others in preparation. \$1.00; Kegan Paul, Trench, Trubner & Co.; \$2.00 per vol., D. Appleton & Co. Education treated from historical, critical, theoretical and practical standpoints.
- Heath's Pedagogical Library: About 30 vols. already issued; others in preparation; D. C. Heath & Co. History, theory and methods of teaching.
- American Teacher's Series: James E. Russell, editor. Several volumes in preparation; some issued; Longmans, Green & Co. Theory and methods in various subjects for teachers in elementary and secondary schools.
- Cyclopedia of Education: Alphabetical reference handbook. Fletcher, editor. 500 pp.; Swan, Sonnenschein & Co.
- Historical Survey of Pre-Christian Education: S. S. Laurie. Longmans, Green & Co. Accounts of the educational ideas of Arabs, Babylonians, Assyrians, Hebrews, Chinese, Hindoos, Persians, Greeks, Romans, etc.
- Introduction to the History of Educational Theories: Oscar Browning. Harper & Bros., 50c; W. J. Gage & Co.
- History of Pedagogy: (From French standpoint). Gabriel Compayre. Translated by W. H. Payne; D. C. Heath & Co.
- History of Education: F. V. N. Painter. D. Appleton & Co.
- Aristotle and Ancient Educational Ideals: Thomas Davidson. Great Educators' Series; Charles Scribner's Sons.
- Education of the Greek People and Its Influence on Civilization: Thomas Davidson. International Educational Series; D. Appleton & Co., New York.
- Old Greek Education: By J. P. Mahaffy. 90c; The Copp, Clark Co.
- Rise and Early Constitution of Universities: Prof. S. S. Laurie. D. Appleton & Co.
- Herbart and the Herbartians: Prof. De Garmo. Great Educators' Series; Charles Scribner's Sons.
- The Arnolds: J. G. Fitch. Great Educators' Series; Charles Scribner's Sons.
- German Universities: Prof. Paulsen. Translated by Perry; Macmillan Co.
- Educational Reformers: R. H. Quick. International Educational Series; D. Appleton & Co.
- History of the School System of Ontario: G. W. Ross. International Educational Series; D. Appleton & Co.
- Froebel's Laws for All Teachers: By James L. Hughes. International Educational Series; D. Appleton & Co.
- Comenius, His Life and Educational Works: S. S. Laurie. Small, Boston.
- Cousin, Victor: By Jules Simon. Trans., Anderson; McClurg, Chicago.
- Horace Mann: Prof. A. B. Hinsdale. Great Educators' Series; Charles Scribner's Sons.
- Pestalozzi, His Life and Work: By Roger de Guimps. Trans. by Russell. International Educational Series; D. Appleton & Co.
- Rousseau: Thomas Davidson. Great Educators' Series; Charles Scribner's Sons.

- German Higher Schools: The history, organization and methods of secondary education in Germany. Dr. James E. Russell, Columbia University. \$2.25; Longmans, Green & Co.
- Studies in Secondary Education: Ackland and Smith, editors. Percival, London.
- Psychology Applied to Education: Gabriel Campayre. Trans. by Payne; D. C. Heath & Co.
- Psychologic Foundations of Education: Dr. W. T. Harris. International Educational Series; D. Appleton & Co.
- Apperception; A Monograph on Psychology and Education: Karl Lange, Trans. by De Garmo; D. C. Heath & Co.
- Institutes of Education: Comprising an introduction to rational psychology. S. S. Laurie. Macmillan Co.
- Psychology: (Briefer course). William James. \$1.50; Henry Holt & Co.
- Talks to Teachers on Psychology: William James. \$1.50; Henry Holt & Co.
- Lectures on Human and Animal Psychology: William Wundt. Trans. by Creighton and Titchener. \$2.60; Macmillan Co.
- Psychology of Childhood: Frederick Tracy. Last edition; D. C. Heath & Co.
- Moral Instruction of Children: Felix Adler. International Educational Series; D. Appleton & Co.
- Genetic Psychology for Teachers: By Judd. International Educational Series; D. Appleton & Co.
- Education as a Science: Alexander Bain. International Educational Series; D. Appleton & Co.
- Education of Man: Friedrich Froebel. Trans. by Hailmann. International Educational Series; D. Appleton & Co.
- Science of Education: Herbart. Trans. by Felkin; D. C. Heath & Co.
- Philosophy of Education: Johann Rosenkranz. Trans. by Brackett. International Educational Series; D. Appleton & Co.
- Education: Herbert Spencer. International Educational Series; D. Appleton & Co.
- Emile: Rousseau. Trans. by Payne. International Educational Series. D. Appleton & Co.
- Education of the Young in the Republic of Plato: Bosanquet.
- Lectures on Pedagogy: Compayre. Trans. by Payne; D. C. Heath & Co.
- On Teaching; Its Ends and Aims: Henry Calderwood; Macmillan Co.
- Theory and Practice of Teaching: Edward Thring. \$1.00; Macmillan Co.
- Report of Committee of Fifteen: Dr. W. T. Harris and others.
- The reports on various phases of modern education by Special Committees of the National Educational Association of the United States, form an invaluable series of monographs.
- Essentials of Method: Charles de Garmo. D. C. Heath & Co.
- Lectures on Language and the Linguistic Method in School: Prof. S. S. Laurie, Edinburgh.
- Teaching the Language Arts: B. A. Hinsdale. International Education Series; D. Appleton & Co.

- English: George R. Carpenter and Franklin T. Baker. American Teacher's Series; Longmans, Green & Co.
- Teaching of English: Teacher's Professional Library. By Percival Chubb. Macmillan Co.
- Teaching of Modern Foreign Languages in Our Secondary Schools: By Karl Bruell. Cambridge University Press.
- Methods of Teaching Modern Languages: Papers by eminent instructors; D. C. Heath & Co.
- Art of Teaching and Studying Languages: Francis Gouin. Trans. by Swan and Betis; Philip, London.
- A Practical Study of Languages: Henry Sweet. Henry Holt & Co., 1900. Very good.
- Hints on Teaching French: With commentary to Dent's First and Second French books. By W. Rippman. 1s 6d; J. M. Dent & Co. There is a companion work on Teaching German.
- How to Study: By Hinsdale. American Book Co.
- Guides for Science Teaching: Published under the auspices of the Boston Society of Natural History; D. C. Heath & Co.
- Report of Committee of Twelve of the Modern Language Association of America: D. C. Heath & Co. Very valuable papers are to be found among the transactions of this Association.
- Study of History in Schools: Report of the American Historical Association, by the Committee of Seven. 50c; Macmillan Co.
- Methods of Teaching and Studying History: G. Stanley Hall, editor. Papers by eminent teachers. \$1.50; D. C. Heath & Co.
- Teaching of History, History and Civics in the Elementary and Secondary Schools: Prof. Henry E. Bourne. American Teachers' Series; Longmans, Green & Co.
- How to Study and Teach History: Prof. B. A. Hinsdale. International Educational Series; D. Appleton & Co.
- Latin and Greek: Charles E. Bennett and George P. Bristol. American Teachers' Series. \$1.50; Longmans, Green & Co.
- The Schoolmaster: Roger Ascham. George Bell & Sons. An excellent presentation of the Renaissance method of teaching the classical languages.
- Teaching of Mathematics in the Higher Schools of Prussia: By J. W. A. Young. 80c; Longmans, Green & Co. An account of the Prussian higher school system, with a suggestive description of the work which these schools do in mathematics.
- Mathematics: By J. W. A. Young. American Teachers' Series; Longmans, Green & Co.
- Teaching of Elementary Mathematics: D. E. Smith. \$1.00; Macmillan Co.
- Mathematical Teaching and Its Modern Methods: T. H. Stafford; D. C. Heath & Co.
- Psychology of Number: Dewey and McLellan. D. Appleton & Co.
- Systematic Science Teaching: E. G. Howe. International Scientific Series. \$1.50; D. Appleton & Co.

Teaching Botanist: Manual of information upon botanical instruction, with outlines and directions for a comprehensive elementary course. Prof. W. F. Ganong. \$1.10; Macmillan Co.

Chemistry and Physics: Alexander Smith and Edwin H. Hall. American Teachers' Series; Longmans, Green & Co.

Biology (Nature Study, Botany and Zoology): Francis E. Lloyd and Maurice E. Bigelow. American Teachers' Series; Longmans, Green & Co.

Nature Study and Life: Hodge. Ginn & Co., 1902. Most excellent.

The New Basis of Geography: Redway. Macmillan Co., 1901. The best book on the subject.

Teaching of Geography: Handbook for teachers. Sir Archibald Geikie. 60c; Macmillan Co.

How to Teach Primary Geography: A. E. Frye. Ginn & Co.

Training of the Young in the Laws of Sex: By Littleton. \$1.00; Longmans, Green & Co.

Addresses and Proceedings of the National Educational Association of the United States, from 1858 to date.

Proceedings of the International Conference on Education (1881): 5 vols. Eyre and Spottiswoode, London.

Report of the Massachusetts Commission on Manual Training and Industrial Education: Boston.

Reports of Royal Commission on Secondary Education: 9 vols. Eyre and Spottiswoode, London.

Report of the Conference on Secondary Education in England: Clarendon Press, Oxford, 1894.

Reports of the Commissioner of Education of the United States, from 1867 to Date.

Special Reports on Educational Subjects: Education Department, London. M. E. Sadler, director. Eyre and Spottiswoode, London. Cheap and most excellent.

XXV. PERIODICALS.

Current History: Published monthly, with illustrations. A monthly summary of contemporary history. 15c a number; \$1.50 a year; The Current History Co., Boston.

Current Encyclopedia: A record of current events, published monthly. \$5.00 a year; Modern Research Society, 912-916 LaSalle street, Chicago. Each number is constructed on the same plan as a Year-Book or Annual Encyclopedia, contains from 128 to 160 pp. and furnishes the latest information on all subjects. Edited by a large and competent corps of writers.

Pedagogical Seminary: Published by G. Stanley Hall. \$5.00 a year.

School Review: A journal of secondary education, published by the University of Chicago. \$1.50.

Educational Review: Published by Nicholas M. Butler, Columbia University. \$3.00.

- School Science: A journal of science teaching in secondary schools. \$2.00 a year; 138 Washington street, Chicago. An excellent monthly.
- Classical Review: Editor-in-chief, J. P. Postgate; assistant editor, A. B. Cook; associates, Cecil Smith for England, W. G. Hale of the University of Chicago, T. D. Seymour of Yale University, and J. H. Wright of Harvard University, for America. Crown 8vo; nine numbers a year of 48 pages each. Subscription price, \$3.00; single numbers, 35c; Ginn & Co.
- Germania: A monthly magazine for the study of the German language and literature; \$1.00 a year; New England College of Languages, 218-220 Boylston street, Boston.
- Geographical Journal: A monthly magazine. 2s each. Teachers may get this at a reduced rate by writing to the secretary Royal Geographical Society, 1 Saville Row, London, W.
- Scottish Geographical Magazine: A monthly magazine. 1s 6d each; Edinburgh Royal Geographical Society.
- Phonetic Journal and the Reporters' Journal: Monthly magazines. \$1.60 a year each; The Copp, Clark Co.
- Penman's Art Journal (Monthly): News edition, \$1.00 a year; regular edition. 60c. Special clubbing rates; Ames & Rollison Co. The news edition is the regular edition, with a supplement devoted to news, miscellany and any special features, such as vertical writing.
- Western Penman (Monthly): Professional edition, \$1.00; students' edition, 60c. Special clubbing rates; The Western Penman Publishing Co.
- Penman and Artist (Monthly): \$1.00 per year. Special clubbing rates; Zaner & Bloser.
- Elementary School Teacher and the Course of Study, \$2.00, and the Manual Training Magazine, \$1.25, both published by the University of Chicago Press, and the Handwork Number of the Teachers' College Record, published by the Teachers' College, Columbia University. The first named deals with elementary work chiefly; the two latter, with both elementary and secondary school work.
- World's Work New York. \$3.00.
- Literary Digest: New York. \$3.00.
- Public Opinion: New York. \$3.00.

XXVI. SCHOOL ROOM DECORATION AND SANITATION.

School Art League: Compiled by the advisory board of the Toronto School Art League, and published under the auspices of the Education Department of Ontario; contains useful hints, with lists of statuary and photographs suitable for school decoration, and for the illustration of history and antiquities. Such photographs and statuary should be made an important feature of the school. The chief Toronto agents are Mackenzie & Co., and the Steinburger, Hendry Co. The latter firm has prepared a special catalogue. Any local dealer in prints, etc., may, of course, provide them. For suggestions connected with art in the school see the

School Journal (New York) of June 27th, 1896; May 14th, 1898; April 15th, 1899. For prices of unmounted photographs and names of foreign photographers in Italy, France, etc., see April 4th, 1896.

School Room Decorations in Ontario: Historical and patriotic. By J. George Hodgins. Education Department, Ontario.

School Sanitation and Decoration: By Burrage and Bailey. D. C. Heath & Co. A very suggestive work, beautifully illustrated. Art subjects are well treated.

XXVII. CATALOGUES.

In each section of this catalogue are the names of such works as contain lists of books in the different departments of study. The following catalogues will also be found serviceable:

Report of Committee on the Relations of Public Libraries to Public Schools: National Educational Association, University of Chicago Press. A very valuable work. Besides discussing the formation of public libraries, it contains lists of books suitable for supplementary reading in the high and public schools.

Graded and Annotated Catalogue of Books in the Carnegie Library of Pittsburgh for the Use of the City Schools: (317 pp.). 60c. Edwin H. Anderson, librarian. Contains classified lists of books suitable for the different grades of the grammar (public) and high schools of the United States. The character of each book is also described.

Catalogue of Books Authorized to Be Used in Public School Libraries, Boroughs of Manhattan and the Bronx: Wyn Koop, Hallenbeck, Crawford & Co., New York. Also an extensive and up-to-date collection, but not so well classified as either of the preceding.

Catalogue of English Prose Fiction: (190 pp.). 60c; Public library, Brookline, Mass.

Subject-Index to Prose Fiction: Dixson. Dodd, Mead & Co., New York, 1897.

XXVIII. PROJECTION LANTERNS, SLIDES, ETC.

Soule Art Co., Roxbury, Mass.

Wm. H. Pierce & Co., 352 Washington street, Boston, Mass.

T. H. McAllister, 49 Nassau street, New York.

J. B. Colt & Co., 115 and 117 Nassau street, New York.

ADDENDUM.

Latin Authors and Commentaries.

[Note.—It is assumed that every library contains the standard American editions of the Latin authors prescribed for entrance to college.]

Caesar: The Gallic War: Edited with notes by Rev. John Bond and A. S. Walpole. The Macmillan Co., New York.

Caesar: The Commentaries (for schools) with notes and maps. Chas. E. Moberly. The Clarendon Press, Oxford.

Caesar: De Bello Gallico. Edited with notes by G. Long. Geo. Bell & Sons, London, 1880.

Caesar: De Bello Gallico. In five volumes. By A. G. Peskett. The University Press, Cambridge, 1878-82.

Ancient Classics for English Readers: Edited by W. L. Collins. J. B. Lippincott Co., Philadelphia.

Caesar: A History of the Art of War among the Romans down to the end of the Roman Empire, with detailed account of the Campaigns of Caius Julius Caesar: T. A. Dodge. Houghton, Mifflin & Co., Boston, 1892; second edition, 1893.

Julius Caesar and the Foundation of the Roman Imperial System: W. W. Fowler. G. P. Putnam's Sons, New York, 1892.

Caesar: A Sketch: J. A. Froude. Charles Scribner's Sons, New York, 1879.

Caesar's Army: A Study of the Military Art of the Romans in the Last Days of the Republic. H. P. Judson. Ginn & Co., Boston, 1888.

History of Julius Caesar: Napoleon III. Translated. Harper & Bro., New York, 1865-66.

Bilder Atlas zu Caesar's Büchern de Bello Gallico. R. Oehler. Schmidt & Günther, Leipzig, 1890.

Cicero and His Friends: G. Boissier. G. P. Putnam's Sons, New York.

Roman Life in the Days of Cicero: A. J. Church. Dodd, Mead & Co., New York, 1884.

The Student's Cicero: W. Y. Fausset. The Macmillan Co., New York, 1890.

Life of Marcus Tullius Cicero: Wm. Forsyth. Chas. Scribner's Sons, New York, 1865.

Roman Triumvirates: Chas. Merivale. Chas. Scribner's Sons, New York.

Cicero and the Fall of the Roman Republic: J. L. Strachan-Davidson. G. P. Putnam's Sons, New York, 1894.

The Life of Cicero: A. Trollope. Harper & Bros., New York, 1880.

Cicero: The Orations, with a commentary by George Long. 4 vols.; George Bell & Sons, London, 1855-62.

Cicero: The Catiline Orations: Edited by A. S. Wilkins. The Macmillan Co., New York.

Cicero: Pro Lege Manilia: Edited by A. S. Wilkins. The Macmillan Co., New York.

The Correspondence of Marcus Tullius Cicero; Arranged according to its Chronological Order: Edited by R. Y. Tyrrell and L. C. Purser. The Macmillan Co., New York, 1879-94.

- Cicero: Selected Letters with notes by C. E. Prichard and E. R. Bernard. The Clarendon Press, Oxford.
- Cicero; Pro Archia Poeta: Edited by J. S. Reid. The University Press, Cambridge.
- Cicero; Select Letters: Edited by Albert Watson; fourth edition. The Clarendon Press, Oxford.
- Country of Horace and Virgil: G. Boissier. G. P. Putnam's Sons, New York, 1896.
- Stories from Virgil: A. J. Church. Dodd, Mead & Co., New York.
- Virgil in the Middle Ages: D. Comparetti. The Macmillan Co., New York.
- The Aeneid of Virgil: Translated into English Verse; J. Conington. A. C. Armstrong & Son, New York, 1894.
- Legends of Virgil: C. G. Leland. The Macmillan Co., New York, 1900.
- Translation of Virgil's Georgics and Eclogues: J. W. Mackail. Longman's, Green & Co., New York.
- Translation of the Aeneid: J. W. Mackail. The Macmillan Co., New York.
- Essays, Classical: F. W. H. Myers. The Macmillan Co., New York, 1897.
- Lectures and Essays: H. Nettleship. Clarendon Press, Oxford, 1885.
- Roman Poets of the Augustan Age: Virgil: W. Y. Sellar; third edition. Clarendon Press, Oxford, 1897.
- Master Virgil: J. S. Tunison. Robt. Clark & Co., Cincinnati, 1890.
- Latin Poetry: R. Y. Tyrrell. Houghton, Mifflin & Co., New York, 1895.
- P. Virgili Maronis Opera: The works of Virgil, with a commentary; vols. I. and II., by J. Conington; vol. III., second edition, by J. Conington and H. Nettleship. The Macmillan Co., New York, 1872-76.
- Virgil: With an introduction and notes by T. L. Papillon and A. E. Haigh. The Macmillan Co., New York, 1892.
- P. Virgili Maronis Aeneidos: Libri I.—XII. Edited with notes by A. Sedgwick. The University Press, Cambridge.
- Virgil: Aeneid Books I.—VI. By T. E. Page. The Macmillan Co., New York.
- Ovid: The Fasti. Edited by F. A. Poley. George Bell & Sons, London.
- Ovid: The Heroides. Edited by E. S. Schuckburgh. The Macmillan Co., New York.
- Ovid: The Amores and Ars Amatoria. Edited by H. Williams. George Bell & Sons, London.
- Ovid: The Metamorphoses. Books I.—III. and XIII.—XIV. Edited by C. Simmons. The Macmillan Co., New York.
- Ovid: Tristia. Book I. and Book III. Edited by S. C. Owen. The Clarendon Press, Oxford, 1890.
- Ovid: Selections. Edited by W. and G. G. Ramsey; third edition. The Clarendon Press, Oxford.
- Sallust: Bellum Catilinarium and Jugurthinum. Edited by W. W. Capes. The Clarendon Press, Oxford.
- Sallust: Catilina and Jugurtha. Edited by C. Merivale. The Macmillan Co., New York.
- Sallust: Bellum Catilinae. Edited by M. Cook. The Macmillan Co., New York.
- Sallust: Catilina and Jugurtha. Edited by G. Long and J. G. Fraser. George Bell & Sons, London.

INVESTIGATIONS

OF THE

Department of Psychology and Education

OF THE

UNIVERSITY OF COLORADO

ARTHUR ALLIN, PH. D., EDITOR.

Professor of Psychology and Education.

VOLUME I

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EDITORIAL.

With the present number, Volume I of the Investigations is concluded.

The first number on "Medical Inspection of Schools" endeavored to present the data on this subject in as complete a manner as possible. The work accomplished along this line in European countries and in America amply justifies the reform movement begun in all our progressive schools. The information gathered from every available source will, we hope, prove of much assistance to Superintendents and Principals who desire to introduce medical inspection into their school systems.

The second number, dealing principally with the "Survival Values of Play," is an attempt to arrive at the scientific value of play. Its place as an essential factor of the school curriculum can be regarded as once and for all time firmly established. Indirectly this investigation of play phenomena is an attempt to substitute scientific investigation for sectarianism in the field of pedagogy. Herbartianism and Froebellianism are interesting as historical stages, but can be regarded only as creeds more or less outworn. The second part of the same number dealt with the statistics of the growth and development of education in the Western States of the Union. Its rapid growth, its solid support on the part of the people, and its thoroughly democratic character were clearly evidenced by the facts adduced.

The third number dealt with the influence of various sociological and psychological movements on education. It was in a way a résumé of educational progress for the year, not from an administrative but from a scientific standpoint.

The present number has in view the need existing in many high schools of more extensive libraries for the use of students and teachers, the many and repeated requests from high-school authorities having led to its compilation. It does not claim to furnish a sufficient or a complete list of books, but additions and corrections may be added in a succeeding number. The various lists have been furnished largely by the professors of the University in the various departments, but special thanks are due to Prof. M. F. Libby, Prof. W. H. Nichols and Prof. F. A. Howe, for their courtesy and assistance.

THE EDITOR.



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